



Smythesdale Structure Plan, Victoria

Cultural Heritage Assessment

Report prepared for: Golden Plains Shire

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Cover photo: Photomap (courtesy Nearmap)

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List of Abbreviations

ABN	Australian Business Number
ACN	Australian Company Number
AH	Aboriginal Heritage
AV	Aboriginal Victoria
BOM	Bureau of Meteorology
CHA	Cultural Heritage Assessment
CHMP	Cultural Heritage Management Plan
CHS	Cultural Heritage Sensitivity
GMU	Geomorphological Unit
HA	Heritage Advisor
km	Kilometre
LDAD	Low density artefact distribution
LGA	Local Government Authority
m	Metre
mm	Millimetre
OSL	Optically Stimulated Luminescence
VAHR	Victorian Aboriginal Heritage Registra
VRO	Victorian Resources Online
RAP	Registered Aboriginal Party
STP	Shovel test pit
TP	Test pit
WTOAC	Wadawurrung Traditional Owners Aboriginal Corporation

1 Introduction

1.1 Description

Golden Plains Shire Council (Council) engaged Unearthed Heritage Australia Pty Ltd (UHA) to prepare an Aboriginal cultural heritage Assessment (CHA) for the Smythesdale Structure Plan.

The scope of the CHA included the aim to capture and map known or existing Aboriginal cultural heritage values, into a single document, and that this will stand alone, separate to any Cultural Heritage Management Plan(s) (CHMPs) or Cultural Vales Assessment(s) (CVAs) that may be prepared in the future, though this CHA report would likely inform future CHMPs and CVAs within the study area.

The scope of this assessment also included a single meeting with Wadawurrung Traditional Owners Aboriginal Corporation (WTOAC), the Registered Aboriginal Party (RAP) for the study area with the aim of this meeting being to formally introduce the project to WTOAC and to provide a summary of the results of the assessment and hold preliminary discussions and seek feedback and input on recommendations.

1.2 The project and its location

This Aboriginal Cultural Heritage Assessment (CHA) has been prepared to support and inform the Smythesdale Structure Plan, Victoria (the Study Area) - [cadastral details in Table 1-1]), Victoria, approximately 134 km northwest of the centre of Melbourne, Victoria (see Figure 1-1). The Study Area is located within the Golden Plains Shire local government area.

At the commencement of this CHA, a search of the Victorian Aboriginal Heritage Register (VAHR) was undertaken to check for Aboriginal places that may occur within or around the Study Area. At the time of the commencement of the CHA there was one Aboriginal place registered within the Study Area:

- VAHR 7622-0148 (Ireland Road)

Table 1-1 Study Area cadastral information

Local Government Area	Golden Plains Shire
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1.3 Legislative requirements

Under the *Aboriginal Heritage Act* 2006 Aboriginal places are protected, and procedures are in place to enable protection and conservation of these places. The *Aboriginal Heritage Act* 2006 (amended 2017) and the *Aboriginal Heritage Regulations* 2018 detail procedures that must be followed in relation to carrying out works in an area of Aboriginal archaeological potential, and which constitute high impact activities. The 'Act' and the 'Regulations' must be consulted and adhered to prior to the commencement of high impact activities in an area of cultural heritage sensitivity.

1.4 Heritage Advisors

David Mathews and Joseph Brooke are the heritage advisors and authors for this report.

David¹ has over 14 years of experience in heritage management and archaeology and is qualified as both a heritage advisor and an archaeologist. David's previous archaeological experience also includes archaeological investigations of a similar scope and scale as this CHA.

Joseph² has over 13 years of experience in heritage management and archaeology and is qualified as both a heritage advisor and an archaeologist. Joseph is a full member of the Australian Association of Consulting Archaeologists Inc. Joseph's previous archaeological experience includes archaeological investigations of a similar scope and scale as this CHA.

1.5 Contributors

Melinda Albrecht and David Mathews undertook the desktop assessment.

Melinda³ has over 15 years of experience in heritage management and archaeology and is qualified as both a heritage advisor and an archaeologist and is on the AV list of Victorian heritage advisors. Melinda's previous archaeological experience also includes archaeological investigations of a similar or larger scope and scale as this CHMP.

The search of the Victorian Aboriginal Heritage Register (VAHR) was undertaken by David Mathews on 13 September 2021.

1.6 Registered Aboriginal Parties

The Registered Aboriginal Party (RAP) for the Study Area is the Wadawurrung Traditional Owners Aboriginal Corporation (WTOAC)

¹ Bachelor of Archaeology (Honours – first class) 2005, University of Calgary, Canada.

² Bachelor of Archaeology (Honours – first class) 2006, La Trobe University.

³ Bachelor of Arts in Classics and Archaeology (Honours) 1997, University of Melbourne; Masters of Arts in Archaeology 2004, La Trobe University.

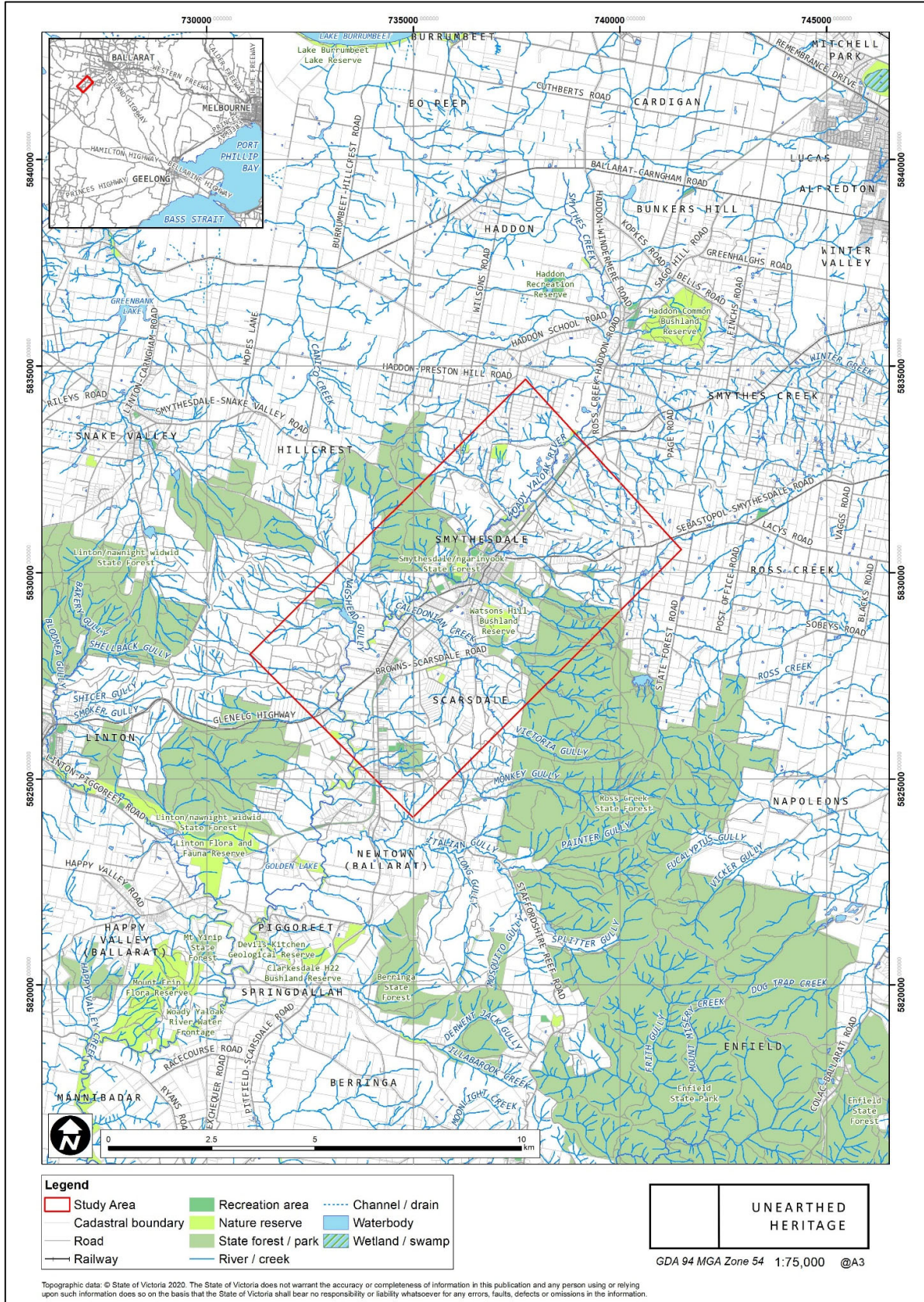


Figure 1-1 Location of the Study Area

2 Study Area

2.1 Description

The Study Area is the area being considered as part of the review to the Smythesdale Structure Plan which is located around the township of Smythesdale. Smythesdale is situated approximately 22 km south west of Ballarat, and the town centre is located north east of the Woody Yallock River. The Study Area measures approximately 5190 ha in size and is a rectangular shape along the axis of the Woody Yallock River.

The study area considers Scarsdale and Newtown as part of an integrated catchment supporting the commercial and community infrastructure of Smythesdale. Scarsdale is linked to Newtown to the south and Smythesdale to the north.

The Smythesdale Structure Plan review is intended to:

- Identify the existing capacity and whether there are opportunities to safely support growth, notwithstanding the significant bushfire risk affecting parts of the town.
- Identify any additional land uses required to support growth.
- Take into account the objectives, principles and requirements of the Golden Plains Planning Scheme, the key influences affecting Smythesdale and the communities' vision for the town.
- Identify opportunities to improve the town not considered in existing Council Strategies, with regard to community and development infrastructure, open space and other matters with a relationship to land use planning.
- Identify whether the existing planning controls in Smythesdale are appropriate and to identify relevant changes if necessary.

The aim of the Aboriginal Cultural Heritage Assessment Report (ACHIR) was to capture and map known or existing Aboriginal cultural heritage values, into a single document, and that this will stand alone, separate to any CHMP(s) or CVA(s) prepared in the future, though the ACHIR report would likely inform future CHMPs and CVAs within the study area. The project included one meeting with Wadawurrung Traditional Owners Aboriginal Corporation (WTOAC), the Registered Aboriginal Party (RAP) for the study area, as the ACHIR is a first step in the engagement with traditional owners about future land use plans for the study area.

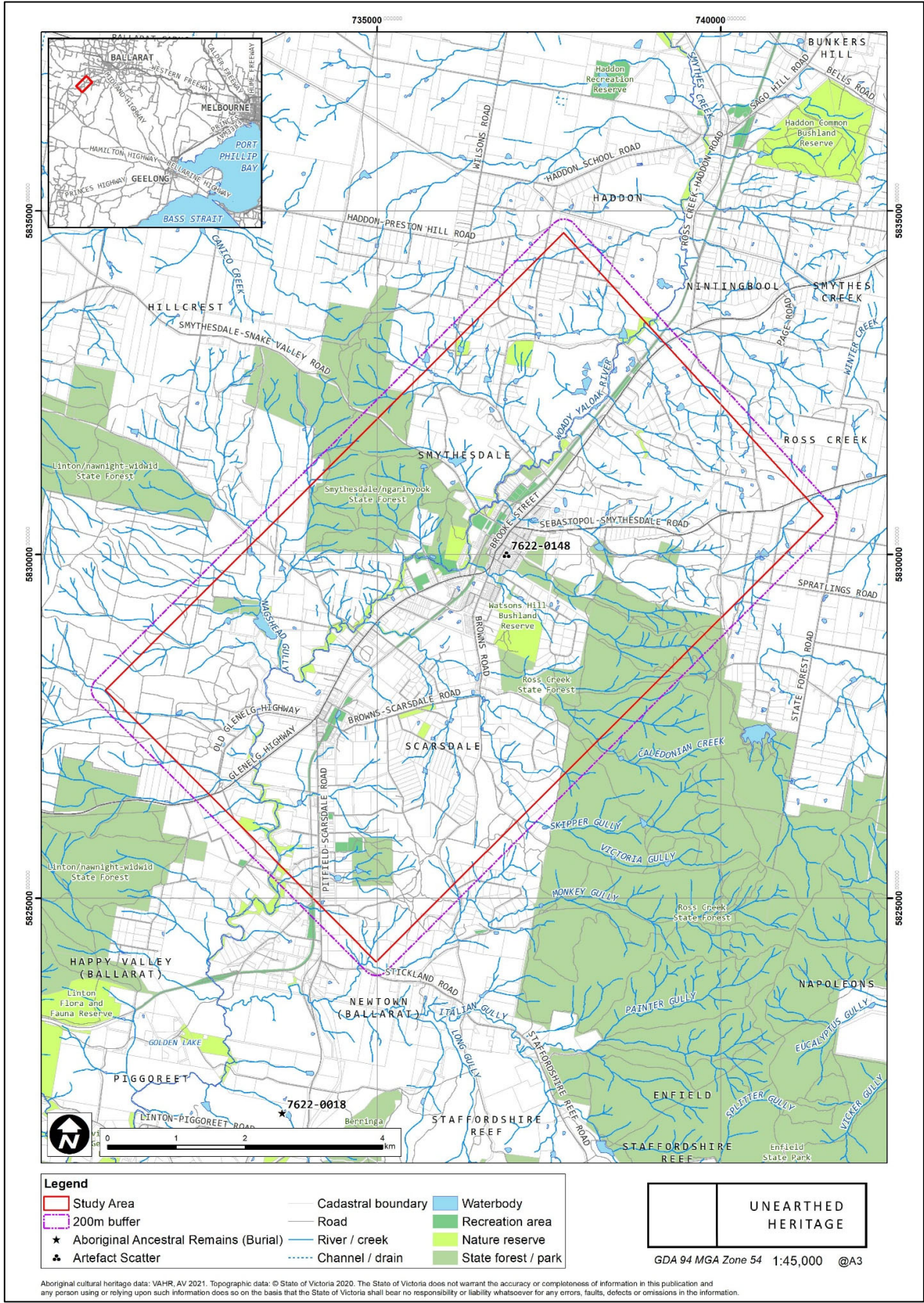


Figure 2-1 The Study Area showing registered Aboriginal places within 200m

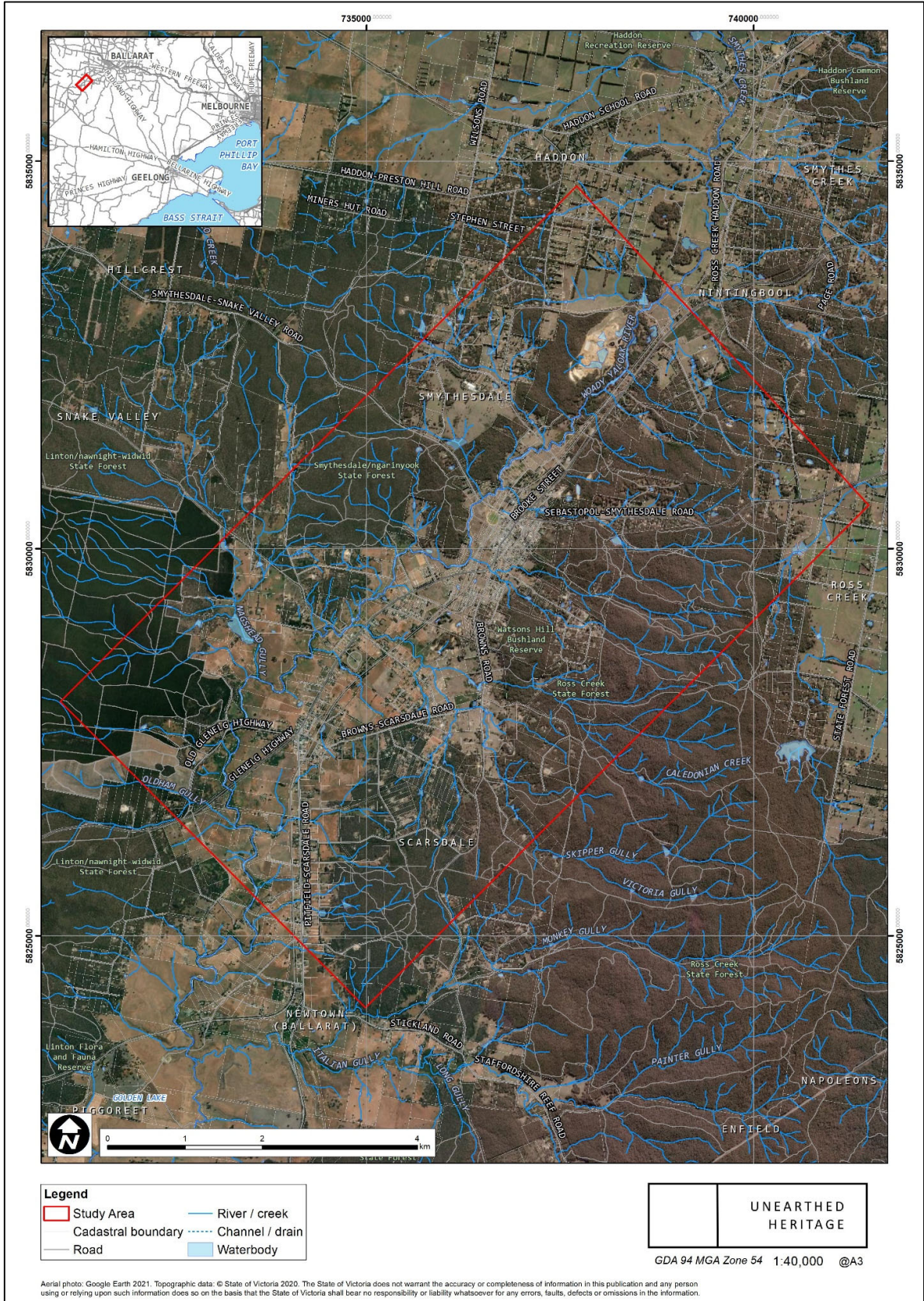


Figure 2-2 Photomap of the Study Area

Aboriginal Cultural Heritage Assessment

This section presents a desktop assessment of the Study Area.

3 Desktop assessment

This section provides background information for the agreement area and the surrounding region. This information is presented to provide an understanding of the physical, historical, cultural and archaeological setting in which the Study Area is located. This information is useful in developing archaeological place prediction models. Melinda Albrecht with assistance from David Mathews undertook the background research for the desktop assessment. There were no obstacles encountered in relation to undertaking the desktop assessment.

3.1 Environmental context

This section provides an overview of the environmental context of the Study Area, with particular focus on factors that may have influenced past human behaviour and hence archaeological place formation processes and the distribution of Wadawurrung cultural heritage places. The land-use history of the agreement areas is also reviewed as it assists in identifying any site formation processes that may have impacted the occurrence and/or location of Aboriginal cultural material.

The activity comprises land at and around Smythesdale, located within the Smythesdale Structure Plan.

It is necessary to place geographical parameters on this desktop assessment to provide a meaningful context broad enough to capture regional environmental and Wadawurrung place distribution patterns, while remaining targeted so that these patterns are not missed. The geographic region used for this assessment is a 10 km buffer (Figure 3-1). This geographic region provides a broad yet targeted context within which to view information relevant to the agreement area regarding flora and fauna, geology, soils, geomorphology, the past occupation by Wadawurrung people that may have led to the creation of Wadawurrung places, and the post-contact land-use history that may have disturbed Wadawurrung places.

3.1.1 Geology and geomorphology

The Study Area contains a range of geological units, and also a range of geomorphological units (Table 3-1, Table 3-2 and Figure 3-1). The geographic region also contains a range of geomorphological units (Table 3-2) and geological units (Figure 3-2).

A large part of the Study Area (81.91%) comprises *Hills, valley slopes and plains on non-granitic Palaeozoic rocks* geomorphological unit (GMU) 2.1.2, followed by *Eruption points and volcanic plains* GMU 2.1.6 which comprise 12.44% of the Study Area, and *Terraces and floodplains* (GMU 2.1.7) comprising 4.90% of the Study Area, as well as *Plateaux and rises of residual Cainozoic landscapes* (GMU 2.1.5) comprising 0.76% of the Study Area (VRO 2021).

In terms of geological units, most of the Study Area (41.25%) comprises Lancefieldian Castlemaine Group (Ocl) consisting of sandstone, mudstone, black shale and minor granule quartz conglomerate, and Pliocene to Holocene Incised colluvium (Nc1) consisting of silt, sand and gravel making up approximately 17.59% of the Study Area, and Pliocene to Holocene Colluvium (Qc1) of diamictite, gravel, sand, silt, clay and rubble comprising 15.95% of the Study Area. The remainder of the Study Area consists of Miocene to Holocene Newer Volcanic Group (Neo) consisting of olivine tholeiite, quartz tholeiite, basanite, basaltic icelandite, hawaiiite, mugearite, minor scoria and ash, fluvial

sediments (8.03% of the Study Area), Pleistocene to Holocene Alluvium (Qa1) of gravel, sand, silt (6.78% of the Study Area), Paleocene to Oligocene White Hills Gravel (-Pxh) of vein quartz conglomerate, sand, silt, clay in fluvial braid plain, outwash fan and colluvial deposits (6.54% of the Study Area), and Middle Cambrian to Late Cambrian Beaufort Formation (-Cab) of sandstone, mudstone and black shale comprising 3.87% of the Study Area are also present.

Table 3-1 Geomorphological units within the Study Area

GMU Tier 3	GMU Tier 1 Description	GMU Tier 2 Description	GMU Tier 3 Description	Lithology	Area (Hectares)	Area (%)
2.1.2	Western Uplands (WU)	Dissected Uplands	Hills, valley slopes and plains on non-granitic Palaeozoic rocks (Daylesford, Maryborough, Bendigo)	Sedimentary	4250.98	81.91%
2.1.5	Western Uplands (WU)	Dissected Uplands	Plateaux and rises of residual Cainozoic landscapes (Dereel, Meredith, White Hills, Trentham)	Sedimentary	39.50	0.76%
2.1.6	Western Uplands (WU)	Dissected Uplands	Eruption points and volcanic plains (Creswick - Ballarat plains, Mt. Franklin, Mt. Blackwood, Metcalfe)	Basalt	645.46	12.44%
2.1.7	Western Uplands (WU)	Dissected Uplands	Terraces and floodplains (Upper Loddon, Upper Woody Yallock Creek, Pomonal-Moyston area, Crowlands, Avoca, Newstead)	Alluvium	254.06	4.90%
Total					5190.00	100.00%

Table 3-2 Geomorphological units within the geographic region

GMU Tier 3	GMU Tier 1 Description	GMU Tier 2 Description	GMU Tier 3 Description	Lithology	Area (Hectares)	Area (%)
2.1.1	Western Uplands (WU)	Dissected Uplands	Ridges, escarpments, mountains on non-granitic Palaeozoic rocks (Ararat Colbinabbin, Pyrenees, Tarrangower, Big Hill, Mt. Macedon)	Sedimentary	2248.38	3.39%
2.1.2	Western Uplands (WU)	Dissected Uplands	Hills, valley slopes and plains on non-granitic Palaeozoic rocks (Daylesford, Maryborough, Bendigo)	Sedimentary	37447.64	56.44%
2.1.4	Western Uplands (WU)	Dissected Uplands	Hills, valley slopes and plains on plutonic Palaeozoic rocks (Pittong, Harcourt, Amphitheatre, Victoria Valley)	Granite	1162.23	1.75%
2.1.5	Western Uplands (WU)	Dissected Uplands	Plateaux and rises of residual Cainozoic landscapes (Dereel, Meredith, White Hills, Trentham)	Sedimentary	7872.22	11.86%
2.1.6	Western Uplands (WU)	Dissected Uplands	Eruption points and volcanic plains (Creswick - Ballarat plains, Mt. Franklin, Mt. Blackwood, Metcalfe)	Basalt	15515.69	23.38%
2.1.7	Western Uplands (WU)	Dissected Uplands	Terraces and floodplains (Upper Loddon, Upper Woody Yallock Creek, Pomonal-Moyston area, Crowlands, Avoca, Newstead)	Alluvium	1739.64	2.62%
6.1.4	Western Plains (WP)	Volcanic plains	Plains with well developed drainage and deep regolith (Cressy)	Basalt	24.19	0.04%
wbody	Waterbody	Waterbody	Waterbody		340.08	0.51%
Total					66350.06	100.00%

Table 3-3 Geological units within the Study Area

ID	Name	Description	Lithology	Geological History	Area (ha)	Area (%)
-Cab	Beaufort Formation (-Cab): generic	Sandstone, mudstone and black shale: sand-poor turbidite facies tectonically modified to phyllite, quartz-mica or graphitic schist; weathered to partly kaolinised; deep marine deposits	mudstone (dominant); sandstone (significant); shale (significant); slate (minor [proportion])	Middle Cambrian to Late Cambrian (turbidity current - deep sea)	201.10	3.87%
Nc1	Incised colluvium (Nc1): generic	Silt, sand, gravel: generally poorly sorted and poorly rounded except within channels cut into colluvial material; dissected to variable degrees	silt [material] (significant); gravel [material] (significant); sand (significant)	Pliocene to Holocene (channelled stream flow - fluvial [environment]; sheet flow - colluvial; earth flow [process] - colluvial)	912.98	17.59%
Neo	Newer Volcanic Group - basalt flows (Neo): generic	Olivine tholeiite, quartz tholeiite, basanite, basaltic icelandite, hawaiite, mugearite, minor scoria and ash, fluvial sediments: tholeiitic to alkaline; includes sheet flows and valley flows and intercalated gravel, sand, clay	alkali basalt (major [proportion]); tholeiitic basalt (major [proportion]); tuff (minor [proportion]); scoria (minor [proportion]); alluvium (minor [proportion])	Miocene to Holocene (lava flow [process] - eruption centre [environment]; water [process] - fluvial [environment])	416.56	8.03%
Ocl	Castlemaine Group - Lancefieldian (Ocl): generic	Sandstone, mudstone, black shale and minor granule quartz conglomerate: mostly thick-bedded sandstone, coarse- to fine-grained, often graded, diffusely stratified to cross laminated, moderately to well sorted; sparsely fossiliferous with graptolites and	shale (significant); sandstone (significant); mudstone (significant); conglomerate (minor [proportion])	Lancefieldian to Lancefieldian (water [process] - hemipelagic; turbidity current - submarine fan)	2140.87	41.25%
-Pxl	White Hills Gravel (-Pxl): generic	Vein quartz conglomerate, sand, silt, clay in fluvial braid plain, outwash fan and colluvial deposits; typically compositionally mature, with ubiquitous well-rounded pebbles and cobbles of reef quartz, lesser more angular vein quartz and bedrock clasts;	conglomerate (dominant); silt [material] (significant); clay [lithology] (significant); sand (significant)	Paleocene to Oligocene (channelled stream flow - fluvial [environment])	339.30	6.54%
Qa1	Alluvium (Qa1): generic	Gravel, sand, silt: variably sorted and rounded; generally unconsolidated; includes deposits of low terraces; alluvial floodplain deposits	silt [material] (significant); sand (significant); gravel [material] (significant)	Pleistocene to Holocene (channelled stream flow - fluvial [environment])	351.75	6.78%
Qc1	Colluvium (Qc1): generic	Diamictite, gravel, sand, silt, clay, rubble: sorting variable, usually poor; generally poorly rounded; clasts locally sourced; includes channel deposits with better rounding and sorting	diamictite (dominant); rubble (significant); clay [lithology] (significant); silt [material] (significant); sand (significant)	Pliocene to Holocene (sheet flow - colluvial)	827.67	15.95%

ID	Name	Description	Lithology	Geological History	Area (ha)	Area (%)
			(significant); gravel [material] (significant)			
Total					5190.22	100.00%

Table 3-4 Geological units within the geographic region

ID	Name	Description	Lithology	Geological History	Area (ha)	Area (%)
-Cab	Beaufort Formation (-Cab): generic	Sandstone, mudstone and black shale: sand-poor turbidite facies tectonically modified to phyllite, quartz-mica or graphitic schist; weathered to partly kaolinised; deep marine deposits	mudstone (dominant); sandstone (significant); shale (significant); slate (minor [proportion])	Middle Cambrian to Late Cambrian (turbidity current - deep sea)	4761.04	7.18%
-Cab	Beaufort Formation (-Cab): hornfels	hornfels	hornfels (all)	Middle Cambrian to Late Cambrian (turbidity current - deep sea); Early Devonian to Early Devonian (local metamorphism - contact metamorphic)	333.70	0.50%
-Cap	Pyrenees Formation (-Cap): generic	Sandstone and mudstone: dominantly sand-rich turbidite facies; moderately to well sorted, variably rounded quartz with minor feldspar and lithic grains in quartz silt or clay matrix; medium to thick bedded; unfossiliferous; weathered to partly kaolinis	sandstone (dominant); mudstone (minor [proportion])	Middle Cambrian to Early Ordovician (turbidity current - submarine fan)	3479.31	5.24%
-Cap	Pyrenees Formation (-Cap): hornfels	Biotite and cordierite hornfels, minor calc-silicate rock	hornfels (all)	Middle Cambrian to Early Ordovician (turbidity current - submarine fan); Devonian to Devonian (contact metamorphism - contact metamorphic)	689.47	1.04%
G305	Illoura Granodiorite (G305): generic	Coarse grained equigranular hornblende biotite granodiorite and porphyritic biotite granite with phenocrysts of K-feldspar, plagioclase and quartz; pale pinkish grey; mafic clots and enclaves abundant in the granodiorite.	granite (major [proportion]); granodiorite (major [proportion])	Late Devonian to Late Devonian (intrusion [process] - continental crust - I-type)	27.63	0.04%

ID	Name	Description	Lithology	Geological History	Area (ha)	Area (%)
G308	Mount Bute Granite(G308): generic	Hornblende biotite granite: medium to coarse grained, pale grey; mafic enclaves and host-rock inclusions; aplite dykes; weathered to kaolinised, magnetic.	granite (all); aplite (significant)	Middle Devonian to Late Devonian (intrusion [process] - mid-crustal - continental crust)	473.98	0.71%
G310	Chepstowe Granodiorite (G310): generic	Biotite granodiorite: medium to coarse grained, pale pinkish-grey; oxidised mafic I-type; magnetic.	granodiorite (all)	Middle Devonian to Late Devonian (intrusion [process] - continental crust - I-type)	31.05	0.05%
Nbb	Black Rock Sandstone (Nbb): generic	Sand, sandstone, conglomerate, minor sandy limestone, local ironstone: pale to dark brown, reddish brown; generally very well sorted, variably cemented; horizontally laminated to low-angle cross-laminated; glauconitic; contains shelly fossils and burrows	sandstone (significant); conglomerate (significant); sand (significant); limestone (minor [proportion])	Miocene to Pliocene (water [process] - marine)	1956.87	2.95%
Nc1	Incised colluvium (Nc1): generic	Silt, sand, gravel: generally poorly sorted and poorly rounded except within channels cut into colluvial material; dissected to variable degrees	silt [material] (significant); gravel [material] (significant); sand (significant)	Pliocene to Holocene (channelled stream flow - fluvial [environment]; sheet flow - colluvial; earth flow [process] - colluvial)	6445.48	9.71%
Nc4	Dissected granite-derived colluvium (Nc4): generic	Quartz and feldspar sand and gravel: well sorted, fine to medium grained; derived from granite	sand (all)	Pliocene to Pleistocene (sheet flow - colluvial)	45.89	0.07%
Neo	Newer Volcanic Group - basalt flows (Neo): generic	Olivine tholeiite, quartz tholeiite, basanite, basaltic icelandite, hawaiite, mugearite, minor scoria and ash, fluvial sediments: tholeiitic to alkaline; includes sheet flows and valley flows and intercalated gravel, sand, clay	alkali basalt (major [proportion]); tholeiitic basalt (major [proportion]); tuff (minor [proportion]); scoria (minor [proportion]); alluvium (minor [proportion])	Miocene to Holocene (lava flow [process] - eruption centre [environment]; water [process] - fluvial [environment])	15822.68	23.85%
Ocl	Castlemaine Group - Lancefieldian (Ocl): generic	Sandstone, mudstone, black shale and minor granule quartz conglomerate: mostly thick-bedded sandstone, coarse- to fine-grained, often graded, diffusely stratified to cross laminated, moderately to well sorted; sparsely fossiliferous with graptolites and	shale (significant); sandstone (significant); mudstone (significant); conglomerate (minor [proportion])	Lancefieldian to Lancefieldian (water [process] - hemipelagic; turbidity current - submarine fan)	16516.01	24.89%

ID	Name	Description	Lithology	Geological History	Area (ha)	Area (%)
-Pxh	White Hills Gravel (-Pxh): generic	Vein quartz conglomerate, sand, silt, clay in fluvial braid plain, outwash fan and colluvial deposits; typically compositionally mature, with ubiquitous well-rounded pebbles and cobbles of reef quartz, lesser more angular vein quartz and bedrock clasts;	conglomerate (dominant); silt [material] (significant); clay [lithology] (significant); sand (significant)	Paleocene to Oligocene (channelled stream flow - fluvial [environment])	2533.86	3.82%
Qa1	Alluvium (Qa1): generic	Gravel, sand, silt: variably sorted and rounded; generally unconsolidated; includes deposits of low terraces; alluvial floodplain deposits	silt [material] (significant); sand (significant); gravel [material] (significant)	Pleistocene to Holocene (channelled stream flow-fluvial [environment])	4420.22	6.66%
Qc1	Colluvium (Qc1): generic	Diamictite, gravel, sand, silt, clay, rubble: sorting variable, usually poor; generally poorly rounded; clasts locally sourced; includes channel deposits with better rounding and sorting	diamictite (dominant); rubble (significant); clay [lithology] (significant); silt [material] (significant); sand (significant); gravel [material] (significant)	Pliocene to Holocene (sheet flow - colluvial)	8047.34	12.13%
Qc4	Granite-derived colluvium (Qc4): generic	Quartz and feldspar sand: well sorted, fine to medium grained; derived from granite	sand (all)	Pleistocene to Holocene (sheet flow - colluvial)	81.05	0.12%
Ql2	Lake deposits (Ql2): generic	Carbonaceous clay and silt, fine to coarse grained sand, gravel; poorly sorted, unconsolidated: lake floor and lake beach deposits.	clay [lithology] (significant); clay [lithology] (significant); silt [material] (significant); fine sand (minor [proportion])	Pliocene to Holocene (detrital deposition still water - lacustrine); Pliocene to Holocene (channelled stream flow - delta [lacustrine])	293.86	0.44%
Qm1	Swamp and lake deposits (Qm1): generic	Grey to black carbonaceous mud, silt, clay, minor peat: generally unconsolidated; rare dolomite	mud (major [proportion]); silt [material] (significant); clay [lithology] (significant); peat (minor [proportion]); dolostone (rare)	Pleistocene to Holocene (detrital deposition still water - swamp/marsh/bog)	390.85	0.59%
Total					66350.31	100.00%

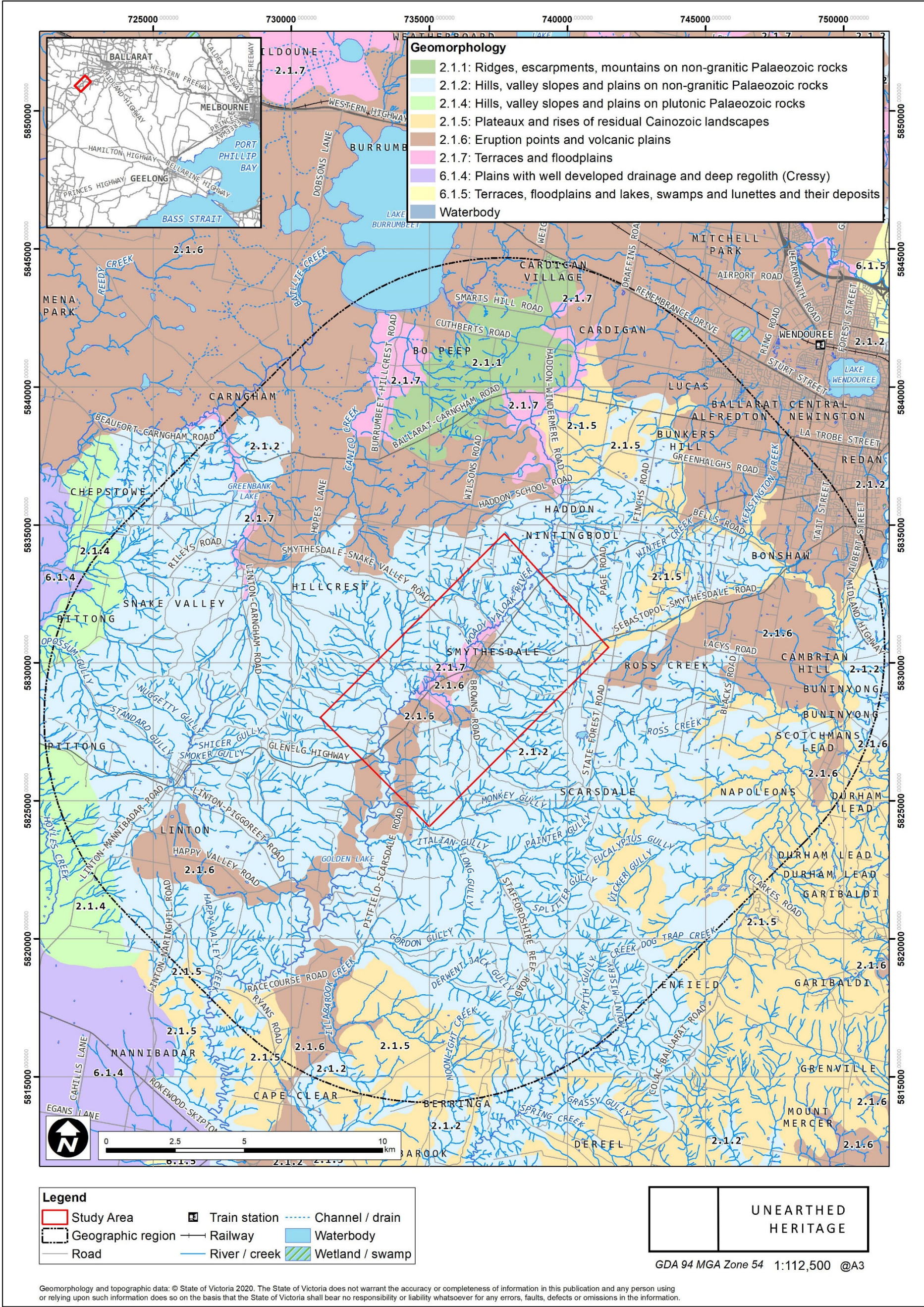


Figure 3-1 Geomorphology within in the Study Area

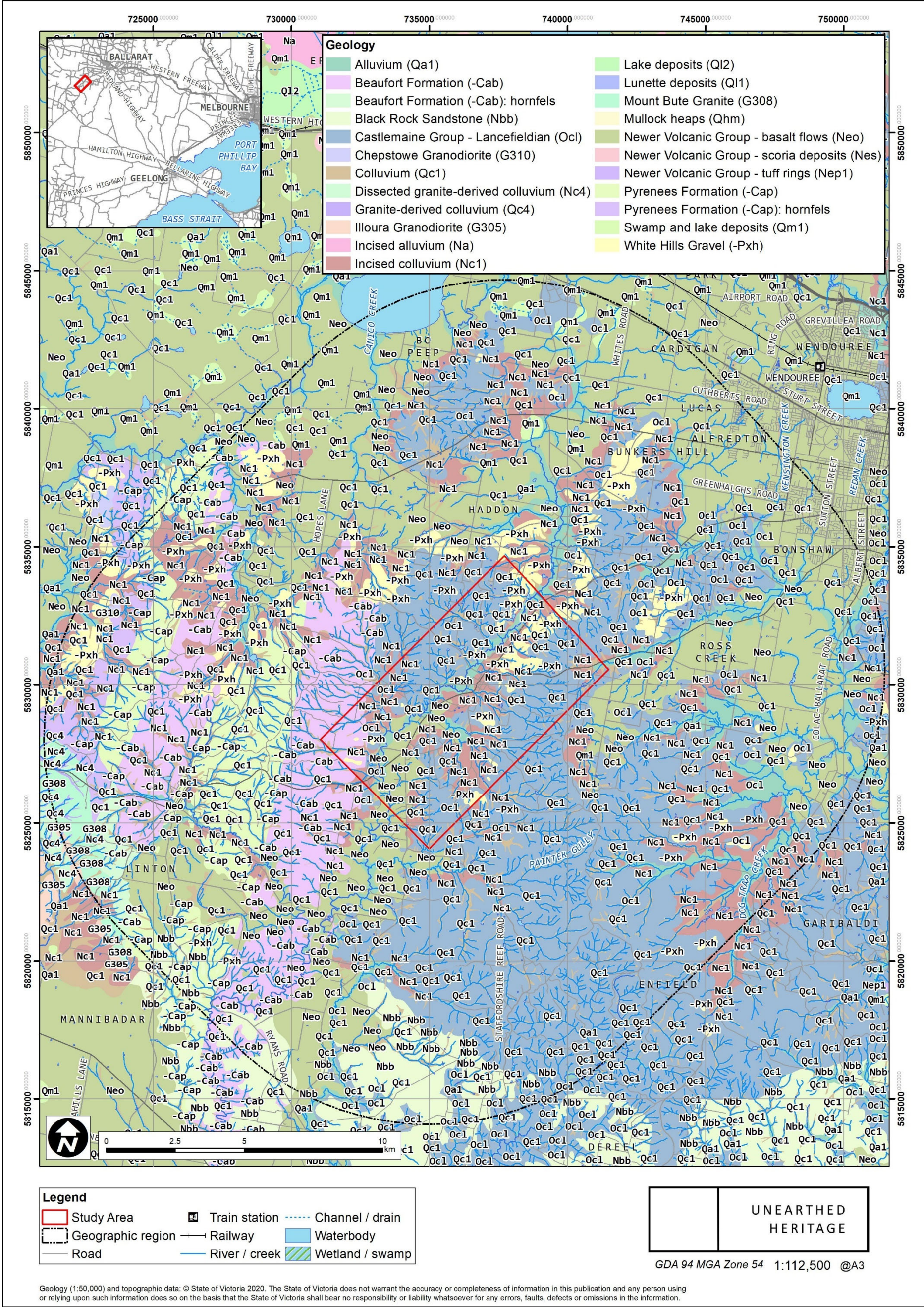


Figure 3-2 Geology within in the Study Area

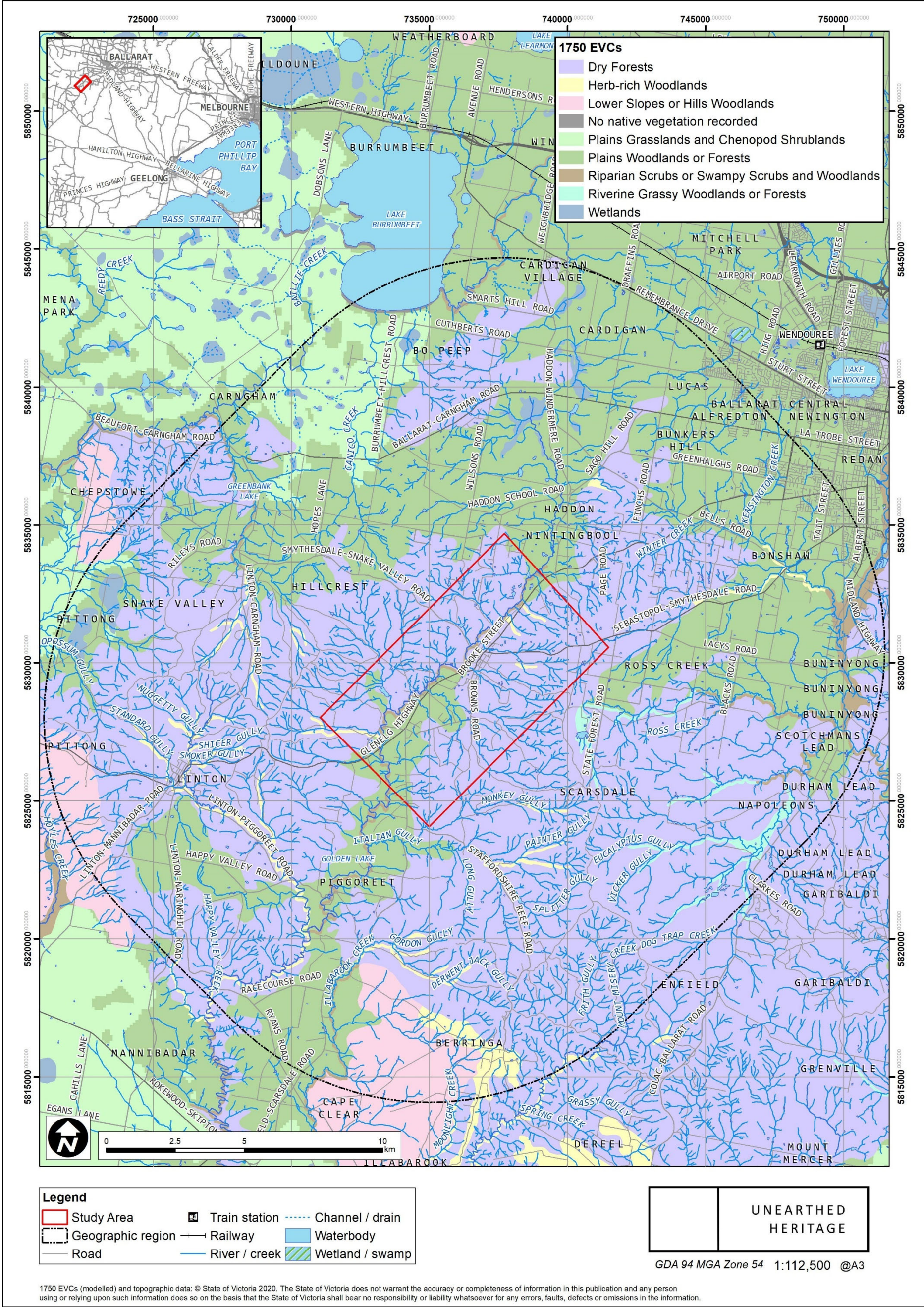


Figure 3-3 Modelled 1750s EVCs within the Study Area

3.1.2 Flora and fauna

The Study Area is located in the Central Victorian Uplands bioregion. Prior to European settlement and land-use, the Study Area and the geographic would have comprised a diverse range of natural resources (Figure 3-3, Table 3-5, Table 3-6). The 1750s EVCs present in the Study Area include Heathy Dry Forest (EVC 0020) that comprises 62.53% of the Study Area. This EVC grows on shallow rocky skeletal soils on a variety of geologies and a range of landforms and elevations. The overstorey comprises low open eucalypt forest to 20 m tall with an open crown cover. The understorey is dominated by low sparse to dense layer including heaths and peas, and grasses and graminoids present in the ground layer.

Species of this EVC may include *Eucalyptus dives* (broad-leaved peppermint), *Epacris impressa* (Common heath), and *Joycea pallida* (Silvertop wallaby-grass). The remainder of the Study Area comprises Plains Grassy Woodland (EVC 0055) that comprises 16.17% of the Study Area, Grassy Dry Forest (EVC 0022) that comprises 9.36% of the Study Area, Valley Grassy Forest (EVC 0047) comprising 8.52 % of the Study Area, Riparian Woodland (EVC 0641) which comprises 2.47 % of the Study Area, and Creekline Herb-rich Woodland (EVC 0164) that comprises 0.95% of the Study Area.

The natural landforms and range of vegetation communities within the geographic region would have supported fauna of that would have been utilised by Wadawurrung populations for food and raw materials such as meat, bones, skins and furs. The vegetation of the region would have also provided resources to Wadawurrung People, such as timber, bark, reeds and grasses for tools, utensils, weapons, nets, mats and baskets, plant material for medicinal purposes, and native vegetable foods, such as nuts, fruits, tubers, and seeds. On the grassland plains west from Geelong to the *Gariwerd*/Grampians including the geographic region, Wadawurrung People caught *Go-yin*/wallabies, *Goim*/kangaroos, *Kawirr*/emu and bush turkeys. Fish and eels were a plentiful resource in the nearby rivers and lakes and root crops were also utilised by Wadawurrung People (Zola and Gott 1992, 41).

Table 3-5 Modelled 1750s EVCs units within the Study Area

EVC ID	Group Name	EVC Name	Subgroup	Area (Ha)	Area (%)
0020	Dry Forests	Heathy Dry Forest	Exposed and/or lower altitude	3245.42	62.53%
0022	Dry Forests	Grassy Dry Forest	Exposed and/or lower altitude	485.77	9.36%
0047	Dry Forests	Valley Grassy Forest	Sheltered and/or higher altitude	442.10	8.52%
0055	Plains Woodlands or Forests	Plains Grassy Woodland	Freely-draining	839.46	16.17%
0164	Herb-rich Woodlands	Creekline Herb-rich Woodland	Alluvial terraces and/or creeklines	49.14	0.95%
0641	Riparian Scrubs or Swampy Scrubs and Woodlands	Riparian Woodland		128.20	2.47%
Total				5190.09	100.00%

Table 3-6 Modelled 1750s EVCs units within the geographic region

EVC ID	Group Name	EVC Name	Subgroup	Area (Ha)	Area (%)
0020	Dry Forests	Heathy Dry Forest	Exposed and/or lower altitude	24834.71	37.43%
0022	Dry Forests	Grassy Dry Forest	Exposed and/or lower altitude	7387.77	11.13%
0047	Dry Forests	Valley Grassy Forest	Sheltered and/or higher altitude	3735.91	5.63%
0055	Plains Woodlands or Forests	Plains Grassy Woodland	Freely-draining	22254.31	33.54%
0067	Herb-rich Woodlands	Alluvial Terraces Herb-rich Woodland	Alluvial terraces and/or creeklines	19.08	0.03%
0083	Riparian Scrubs or Swampy Scrubs and Woodlands	Swampy Riparian Woodland	(blank)	356.04	0.54%
0125	Wetlands	Plains Grassy Wetland	Freshwater	339.60	0.51%
0128	Dry Forests	Grassy Forest	Sheltered and/or higher altitude	152.34	0.23%
0132	Plains Grasslands and Chenopod Shrublands	Plains Grassland	Clay soils	2208.97	3.33%
0164	Herb-rich Woodlands	Creekline Herb-rich Woodland	Alluvial terraces and/or creeklines	1138.10	1.72%
0175	Lower Slopes or Hills Woodlands	Grassy Woodland	Grassy	2314.55	3.49%
0198	Riverine Grassy Woodlands or Forests	Sedgy Riparian Woodland	Creekline and/or swampy	429.81	0.65%
0641	Riparian Scrubs or Swampy Scrubs and Woodlands	Riparian Woodland	(blank)	552.76	0.83%
0647	Wetlands	Plains Sedgy Wetland	Freshwater	268.97	0.41%
0691	Wetlands	Aquatic Herbland/Plains Sedgy Wetland Mosaic	Freshwater	5.43	0.01%
0851	Riparian Scrubs or Swampy Scrubs and Woodlands	Stream Bank Shrubland	(blank)	11.38	0.02%
0897	Plains Grasslands and Chenopod Shrublands	Plains Grassland/Plains Grassy Woodland Mosaic	Clay soils	7.03	0.01%
0992	No native vegetation recorded	Water Body - Fresh	(blank)	333.49	0.50%
Total				66350.24	100.00%

3.1.3 Climate

The climate in the geographic region is cool to warm. The climate data in the region (taken from the Ballarat Aerodrome weather station) suggests average maximum winter temperatures range from 10.1°C to 11.4°C, whilst average minimum winter temperatures range from 3.2°C to 4.0°C, and average maximum summer temperatures range from 22.7°C to 25.2°C and average minimum summer temperatures range from 9.5°C to 11.5°C (BOM 2021). The average annual rainfall is 686.9 ml, with August generally having the highest average monthly rainfall of 74.0 ml and January being the month of lowest average rainfall of 40.1 ml (BOM 2021).

While these climatic conditions would have placed no strictures on Wadawurrung occupation, they would have clearly led to differential seasonal occupation between different parts of the landscape. Additionally, during the long period of Wadawurrung occupation of this region (at least c.37,000 years), climatic conditions have varied significantly. This would have included colder and drier conditions during the last ice age that would have seen the drying up of *Nerm*/Port Phillip Bay, to warmer and wetter periods (in the mid-late Holocene, c.3,000-4,000 years ago) that would have provided different challenges (e.g. more extensive swampland) and opportunities (e.g. more water and resources) for occupation (Mulvaney & Kamminga 1999).

3.2 Land-use history

In 1852, gold was first discovered in the Woody Yaloak Creek at Smythesdale, and soon miners came to the area. As a result of this activity, numerous townships developed. The town was named after John Smythe who took up a pastoral lease the area (Victorian Places 2021). John Smythe held the Smythe's Creek of Nentingbull/Nentingbool lease from 1838 to March 1848 (Billis and Kenyon 1975: 141; Spreadborough and Anderson 1983: 128). Nentingbool run was gazetted on February 23 1849, and prior to this date had been licensed to Smythe. In March 1848, the run was held by Archibald Buchanan Yuille. On July 16, 1852, Archibald McLachlan held the run. In 1855, Thomas Stevens held the run. On January 2 1860, Laurence Flynn held the run, and in 1868, the run was absorbed by sale (Spreadborough and Anderson 1983: 128).

The town of Smythesdale became established by the gold rush to Smythe's and Brown's Diggings and it became the colonial government's administration with buildings including a Courthouse, the former building of the Police magistrate, Police Station and Police Stables dating from the central goldfields era (Victorian Heritage Database 2021 – Smythesdale Precinct). By 1859, the population of the Smythes Creek Goldfields was 20,000 (Woody Yaloak Historical Society 2021). During the 1860s, the town contained a mechanics' institute, free library, a foundry, a sawmill, a brewery and a number of hotels. There was a public park, a racecourse, several sporting clubs and an amateur theatre group. By the mid-1880s, Smythesdale was connected to Ballarat by rail (Victorian Places 2021).

The land surrounding the township of Smythesdale has generally been utilised for agriculture, with state forest areas such as the Scarsdale Plantation located further to the west.

3.3 Cultural context

3.3.1 Introduction

Information about the early inhabitants of the region around the Study Area is predominantly derived from observations made by Europeans in the nineteenth century at a time when traditional life had already been severely disrupted so this must be taken into considered when utilising these resources.

3.3.2 Ethno-historic background

The Study Area is located within the country of the Wadawurrung Aboriginal people. The northern boundary of Wadawurrung Country at the time of European contact extended from *Langi-yan*/Mount Misery and *Yarram Yarram*/Beaufort in the northwest to the *Wirribi Yalluk*/Werribee River in the northeast. The western boundaries were *Boringa Yalluk*/Fiery Creek and Mt Emu Creek. The southernmost boundary was at *Mangowak*/Airey's Inlet, and in the east was the *Bella-wein*/Bellarine Peninsula (Barwick 1984: 118; Clark 1990: 310-312). The boundaries appear largely to be determined by features of the landscape but were probably not fixed immutably over time: the boundaries described here are the ones that appear to have been in place at the time of contact with Europeans in the early 19th century. Wadawurrung Country was part of a broad area of central and northern Victoria occupied by the Kulin Nation Peoples. The Kulin were divided into different but linguistically-related 'language groups'.

At the time of contact with Europeans the Wadawurrung comprised some 25 or 26 clans (Clark 1990: 307, 311, 312-335; Clark 1995: 169). Each of these clans was responsible for a particular area of land (called their 'estate' by Barwick [1984: 106]), and each shared a common identity in terms of history, genealogy and religion (Clark 1990: 379-386; Barwick 1984: 107-113).

The clan was the most important social group in Aboriginal society. It was the clan that owned the land, and it was the clan with which the individual identified himself or herself (Presland 2010: 18). But all the members of a clan did not permanently live together. Smaller groups, comprising extended families made up the basic economic group. These are generally called 'bands' and would typically number 15 to 20 individuals – usually one or two families: men, their wives, sons, unmarried daughters, and a shifting population of other relatives (Presland 2010: 18). The band is the group that is most relevant to archaeological investigations, since it is most commonly their activities (hunting, fishing, gathering, camping) that are represented in the rather ephemeral archaeological record. While band membership could be rather fluid, clan membership was established at birth. Both one's moiety and one's clan were inherited from his or her father; this inheritance was retained for life (Barwick 1984: 106). Once born, a clan member identified deeply and spiritually with his or her land. The clan members' connection to the land defined their very existence: it was theirs since the Dreaming: "Wherever one is born, that is his or her country" (William Thomas, cited in Cannon 1983: 624). And it was the land, tragically, that was taken away from the Aboriginal people: their suffering on this account cannot be overemphasized.

The Kulin Nation had a patrilineal descent system and an exogamous moiety system. Each clan belonged to either the *Bundjil* (or *Bunjil*, 'Eaglehawk', or 'Wedge-tailed Eagle') or *Waa* ('Crow') moiety; marriage had to be with someone from the other moiety. William Thomas, the Assistant Protector of Aborigines for the Central Protectorate District of Western Port between 1839 and 1849, and later Guardian of Aborigines, said the Kulin Peoples could marry only outside their tribe (Thomas, cited in Gaughwin and Sullivan 1984: 94-95). Presland says Eastern Kulin men sought "marriage partners from within the confederacy but outside of their own clan", and that the Wadawurrung were included in this practice (Presland 2010: 15). There seems to have been a preference to marry a member of a distant clan; such marriages would often involve partners from different ecological regions, which would expand the possibilities for resource exploitation. Such marriages could cement alliances between far-flung groups of the confederacy (and beyond), but they could also cause tensions and enmities.

Wadawurrung clans intermarried with those of the Gulidjan, Djargurd wurrung, Djab wurrung, and Djadja wurrung to their south, west, and north (Clark 1995: 169). Wadawurrung clans reportedly also took part in Kawirr/emu hunts at Mirraewuae Swamp west of Caramut, in Dhauwurd wurrung Country, along with Djab wurrung, and Girai wurrung clans (Dawson 1881: 3; Clark 1995: 169). And they participated in multi-group *Buniya*/eel-catching in the lakes and rivers of western Victoria: the most prominent of these places was the area around Lake Bolac, in Djab wurrung Country. Near Lake Terang in Girai wurrung Country was a traditional meeting place for trading objects such as adhesive gum and stone axes (Clark 1995: 169). The Wadawurrung would also regularly meet with the Wurundjeri/Woi wurrung and Bunurong/Boon wurrung to their east to renew family ties, as well as for trade and ceremonial purposes.

The Wadawurrung clan whose traditional land most likely included the Smythesdale area was the Wongerrerr balug who, according to Clark (1990: 311) were located at the "head of Wardy Yalloak River". According to G.A. Robinson's 1841 journal and report, Robinson met with members of the Wongerrerr balug at Baillie's station in August. Robinson noted that there were 'but few men left of this tribe', and Barwick estimated that in 1841 the clan included three men and two women, and one male child (Clark 1990: 334). The meaning of "Wongerrerr balug" is 'Wungira people', however the meaning of 'Wungira' is unclear (Clark 1990: 334). The clan head of the Wongerrerr balug was Dang-her-ner-en-ong, who was middle aged in 1846 (Barwick Papers in Clark 1990: 334). The moiety of the clan was Bunjil.

Massola (1962) related a story that had been recorded by Stanbridge in 1861 about a fight between Mount Buninyong and Mount Elephant which Stanbridge had recorded whilst writing about Aboriginal tribes in the neighbourhood of Fiery Creek. The Stanbridge version of the story was as follows:

“One of the legends that these tribes are fond of relating is that Tyrrinallum (Mount Elephant) and Bouningyoung (two volcanic hills about thirty miles apart) were formerly black men, that they quarrelled and fought, the former being armed with a leeowil and the latter with a hand spear, and after a prolonged contest Tyrrinallum thrust his spear in Bouningyoung’s side, the cause of the present hollow in the side of the hill, which so infuriated him that he dealt the other a tremendous blow, burying the point of the leeowil in his head, which made the present large crater and knocked him to the spot where he now stands.” (Massola 1962: 110)

Whilst on a visit to Lake Tyers Aboriginal Station, Massola had been told the story by Mrs Annie Alberts who was born at Lake Condah, and Mrs Alberts version was as follows:

“Mount Elephant and Mount Buninyong were once men. Mount Elephant was in possession of a stone axe. Buninyong offered him some gold for it. Having agreed they met at what is now Pitfield Diggings for the exchange. Some time later Buninyong reconsidered, and desired his gold back. Elephant refused. Buninyong sent him a fighting message, and the challenge was accepted. They met at Pitfield Diggings. Elephant buried his spear in Buninyong’s side, and the hole can be seen to this day. Elephant received a deadly blow on the head from Buninyong’s stone axe. The gaping hole on Elephant’s head can also be seen to this day. The two men, mortally wounded, retired in opposite directions; their bodies turned into mountains, can be seen today in the spots where they died.” (Massola 1962: 110)

Wadawurrung Elder, Uncle Byron Powell, narrated a story on ABC Open Ballarat about the Wadawurrung and Bonan Youang. A transcription of the recorded story is provided below:

“We are here on Bonggerimennin and we have a view of Bonan Youang and Derrinalum. Bonan Youang is known as Mount Buninyong and it means a man lying on his back with his knees raised. Terrinalum is now called Mount Elephant. And Terrinalum actually means place of the Sea Terns which are like swallows. Now the story that is told by the Old People is that Buninyong and Terrinalum argued, challenged each other to a fight and they came together to fight at a place called Pitfield. Terrinalum had a spear. Buninyong had an axe and as they fought Terrinalum pierced Buninyong’s side with a spear. Buninyong hit Terrinalum on the head and split his head with his axe. And they were so angry that they spat fire at each other. But they were also hurt so they retired back to their campsites to rest and they turned into stone. And you can still see them today. If you look at Buninyong you can see where Terrinalum’s spear pieced his side. If you look at Terrinalum you can see where Buninyong’s axe split his head open.” (ABC Open Ballarat – Wadawurrung language: Bon Youang).

3.3.3 Contact and Beyond

The pre-invasion population of the Wadawurrung has been estimated to have been between 1,620 and 3,240 (Clark 1990: 307). The earliest Europeans to encounter the Wadawurrung were sealers, and they began a horrific pattern for what was to follow: the introduction of diseases, the seizing of local resources, and the kidnapping and raping of Aboriginal women (Cotter 2001: 19). They operated (as did whalers slightly later) on the Warre/Bass Strait coast from 1798 until the 1830s, and probably made occasional incursions into Nerm/Port Phillip Bay. After encounters with European, the decline in the Wadawurrung population was catastrophic and precipitous. For example, the

Watha wurrung bulluc clan of the *Barrabul*/Barrabool Hills who are one of the best-documented Wadawurrung clans numbered 297 people in 1837 (Clark 1990: 299). From about 1842 there survives a list of the Watha wurrung bulluc clan, naming 44 men, 41 women, 22 boys and 11 girls (Frances Sievwright Davenport, cited in Clark and Cahir, eds. 2016: 309-312); by this time several Wadawurrung clans were almost extinct. By 1853 the Watha wurrung bulluc clan was reduced to nine women, seven men, and one child, according to an early European settler, George Lloyd, who added that there had been no more than 24 Watha wurrung bulluc children born over the previous seventeen-year period (Lloyd 1862: 456, 458, 462, cited in Clark 1990: 307-308). This represents a population loss of over 94% in just 16 years for the Watha wurrung bulluc clan.

Two smallpox epidemics – one around 1789-1790 and the other 1829-1832 – appear to have devastated Victorian Aboriginal peoples (death rates were probably around 50% of those infected). The effect on the Wadawurrung and other Aboriginal groups would have been devastating. Some groups reportedly were wiped out entirely in western Victoria (Robinson, cited in Presland 2010: 87). Dysentery (1839), influenza (1847), pneumonia, tuberculosis, and venereal disease also ravaged the people in the early years of European settlement.

During the late 1830s, the Aboriginal Protectorate of the Port Phillip District was created (Clark 1995: 3). The first objective of the Protectorate was to shield Aboriginal people from the encroachment on their lands, and Protectors were to attach themselves to the Aboriginal groups in their district, guard the interests and rights of the Aboriginal people, try to get Aboriginal people to settle in a particular location, instruct in Christianity, teach agriculture and carpentry, educate the children, learn the language(s) in their district, and conduct a census of the Aboriginal people in their district: name, gender, and age (Clark and Cahir, eds. 2016: 1). In order to be able to assert their authority, the Protectors were also appointed magistrates (Clark 1995: 3).

George Augustus Robinson was appointed Chief Protector. The assistant protectors were William Thomas, Charles Wightman Sievwright, Edward Stone Parker, and James Dredge. Parker and Dredge were Methodist preachers, Thomas a Methodist educator, and Sievwright a British Army Officer. In March 1839, Robinson allocated regions of the Port Phillip District to his assistants: Thomas was given the Central Protectorate District of Western Port, Sievwright the Western District (which included Geelong and stretched west to Portland), Parker was given the Loddon and Northwest District, and Dredge the Goulburn District. Wadawurrung Country was divided between two Protectorate districts. The northern Wadawurrung lands around *Yarram Yarram*/Beaufort were overseen by Edward Stone Parker, although most of his district, the Loddon district was in *Dja Dja* wurrung Country. In the south, and covering most of Wadawurrung Country, was the jurisdiction of the Western district, overseen by Charles Sievwright. Initially Charles Sievwright based himself near Fyansford, later relocating to Lake Keilambete near Terang in *Girai* wurrung Country. In 1839 a Methodist missionary, Francis Tuckfield, had established the Buntingdale Mission, near Birregurra. The mission was in Gulidjan Country, very near their borders with the Wadawurrung and Gadubanud. However, Tuckfield completely misunderstood the spiritual power of Country to Aboriginal people, and the Wadawurrung and Gulidjan continually fought with each other. George Robinson, the Chief Protector, in his annual report for 1841, noted that the Wadawurrung had declined to occupy the Wesleyan mission station at Birregurra in Gulidjan Country, and suggested a tract of their own land should be reserved. By 1842 it was decided that the Buntingdale Mission would be for the Gulidjan only.

In 1849 the Protectorate was abolished, and a period of government inaction and neglect followed. This situation was exacerbated when gold was found throughout much of Victoria, which marginalized the Aboriginal people even more. Their traditional hunting and plant harvesting estates

had been taken over by sheep, and they survived as best they could. In 1860 the 'Central Board Appointed to Watch Over the Interests of Aborigines' was established, and three reserves were listed for the Wadawurrung. The three reserves were at Steiglitz (259 ha) near Staughton Vale, Karngun (1.2 ha) in Winchelsea, and Mount Duneed (1 acre [0.4 ha]) south of *Djilang*/Geelong. At Mount Duneed a hut was built for the Wadawurrung; they were not allowed to remain in *Djilang*/Geelong after dusk. A depot was created at *Djilang*/Geelong for the distribution of rations. By the late 1860s many Wadawurrung were being encouraged to move to Coranderrk, in Wurundjeri/Woi wurrung Country near Healesville. In 1893 almost half the remaining Coranderrk land was reclaimed by the government, and the reserve was formally closed in 1924. Most of the surviving residents were forcibly moved to Lake Tyers in Gippsland, in what used to be Gunai Kurnai Country.

On 23 September 1896, Mullawallah (also known as 'William Wilson', or 'King Billy') died in Ballarat, aged about 76. He was a member of the Borumbeet bulluk and lived at 'Ercildoune', about 40 km east of *Yarram Yarram*/Beaufort. He was called the 'last of the Ballarat Aborigines'. The 'last' of the Watha wurrung bulluc was Willem Baa Nip, who died in 1885, aged about 48. Known as 'King Billy', or 'William Gore', he was often called the last of the 'Barrabool Aborigines' (i.e. the Watha wurrung bulluc clan). His near-contemporary, Billy Leigh, also called King Bill, died around the same time and was called "the last of the Yaawangi clan".

But the Aboriginal people of Victoria did manage, remarkably and heroically, to survive – although only just. In the 1921 census the count of Aboriginal people was only 586 (though likely many Aboriginal people were hiding their heritage at that time). Even as late as 1961 the count was less than 2,000. By the 2001 census, however, the count was almost 30,000. Today the Wadawurrung People are the descendants of their apical ancestor John Robertson (1846-1919). With two wives, Esther and then Margaret, John had seven children, and the subsequent seven family groups descended from John comprise the Wadawurrung People.

In 1997 these descendants were recognised as Traditional Owners, and the Wadawurrung Traditional Owners Aboriginal Corporation (WTOAC) was incorporated under the *Aboriginal Councils and Associations Act 1976*. As such, the WTOAC acts on behalf of all Wadawurrung People and represents their interests. The WTOAC was appointed to Registered Aboriginal Party (RAP) status in 2009 under the *Aboriginal Heritage Act 2006* for part of its application area, and on 20 March 2013 the whole of its application area was awarded RAP status (Anonymous 2019).

3.4 Archaeological background

The findings of previous cultural heritage assessments in the geographic region can help inform the current study by improving our understanding of the distribution of Wadawurrung places in the region and the factors that have led others to their discovery. Therefore, a review of previous assessments in the wider geographic region on similar landforms, as well as in a more local context, is pertinent.

3.4.1 Regional studies

McNiven's study of the Corangamite Basin provides context to the archaeology of the region and is summarised below.

Corangamite Basin (McNiven 1998)

McNiven (1998) undertook desktop research and sample survey (AV report 1282) of geologically differentiated land units within the Corangamite Basin. The aim was to provide a predictive

Aboriginal place location model for the region. McNiven (1998: 16) recorded the salinity levels of water sources in the Corangamite Basin in relation to suitability for human consumption, noting that the only lakes which provided potable water were at the north of the Basin, and those were only suitable in Winter. The water courses (Pirron Yallock Creek and Woody Yallock River, similarly, provided was that was suitable for human consumption during Winter months. Also observed was the extreme fluctuation of both lake and water course levels in response to both long-term climatic changes but also to short term seasonal changes (McNiven 1998: 17). McNiven (Haydon 1846: 55 in McNiven 1998: 17) refers to records kept by Haydon of conversations with local Aboriginal people informing European settlers that people had been able to walk across Lakes Colac and Corangamite during times of drought. Similarly documented was flooding over of lakes (Corangamite, Colac, Gnarpur, Lough Calvert) in times of heavy rainfall (McNiven 1998: 17). Climatic fluctuations also impacted vegetations, as noted via pollen cores taken from Lake Bullen Merri which showed dry conditions between 16-10kya and cores at nearby lakes showing high water levels between 30-18kya (McNiven 1998: 22). Fluctuating levels with associated changes in vegetation were observed via pollen cores at Lake Bullen Merri. Using known place locations and water level and salinity information, McNiven (1998: 91-92) proposed an ecologically-based model of occupation based on seasonal variations, with dispersed settlement pattern during the wetter months when increased levels of fresh water was available and several water sources and a more focussed pattern along high level water courses and fresh water lakes during the drier months. McNiven (1998: 93) suggested that, rather than representing a combining of resources at times of scarcity, seasonal inter-regional gatherings were more social than economic. McNiven (1998: 94) identified two major influential factors in relation to site patterning: water salinity and social and economic intensification. For example, increasing and decreasing salinity (therefore, ability to consume the water) would have seen use and abandonment patterns of occupation. McNiven (1998: 95) suggested the following in regards to occupation intensity over time:

- Late Pleistocene (40-20kya): sporadic occupation for ephemeral use by small groups of highly mobile hunters focussing on higher level water sources.
- Late Pleistocene (20-10kya): decreased occupation due to drier conditions, with some areas too dry to use, and with focus on higher level water sources.
- Early Holocene (10-5kya): increase in water (therefore decreased salinity and increase availability of potable water) due to warmer and wetter climatic conditions led to an increase of occupation by small groups of highly mobile hunters, with water playing a less critical role due to increased abundance.
- Late Holocene (5kya-200ya): drier and cooler climatic conditions made availability of freshwater an important factor again and population increase led to year-round use of the region.

The Basin was divided in geological units for sample survey: Quaternary Sediments Unit, Stony Rises Unit, Basalt Plains Unit, Tertiary Sands unit, and Palaeozoic Metamorphics Unit. In total, ninety locations representing stone artefact occurrences (divided into thirteen Aboriginal places) were identified. The Quaternary Sediments Unit and Stony Rises Unit had the highest density of sites. The clearest bias was toward lake edges and creek edges, with all sites identified within 100 m of a water source and none within the 'inland' transect (26km of survey transect). McNiven (1998: 12-128) identified four patterns regarding site distribution:

- All scatters and the majority of isolated finds are close to water, particularly lake edges;
- The margins of less saline lakes have higher site coverage;

- Differences in land unit type (geologically) along water sources had very little influence on establishment and densities;
- Palaeozoic Metamorphics is the least likely unit for any site location and isolated find patterning was significantly higher in Stony Rises, Basalt Plains and Tertiary Sands units.

Quartz dominated (85-99% of all sites), followed by quartzite, with minor amounts of chert and silcrete and other raw materials present.

3.4.2 Local-scale Assessments

Local-scale investigations have been undertaken within and immediately adjacent to the Study Area. The most relevant are discussed here.

Murphy and Rymer (2007) conducted a desktop cultural heritage assessment for the Bo Peep Wind Farm (AV Report 3816), located 15 km west of Ballarat. The project area for CHMP 17234 is situated approximately 6 km north of the current Study Area. At the time of the assessment, there were no previously registered Wadawurrung places within the project area and only three previously registered places within 5 km of the project area. The most likely Wadawurrung site types to be found within the project area were deemed to be low to moderate density surface stone artefact scatters. Stone artefact scatters were likely to be found within 100 m of perennial water courses, springs, swamps and lakes and 50 m from intermittent drainage lines, on hilltops, saddles and ridgelines that give good views and are close to potable water or provide travel routes between locales. The size and density of sites will increase with proximity to more than one resource zone. Artefacts will be manufactures from locally available raw materials such as quartz that is found in outcrops and streams, with smaller quantities of imported silcrete. Scarred trees may be found within remnant stands of mature native trees in the eastern section of the project area. Earth features may occur near former swamps and on flood terraces on water courses. The consultants recommended a ground survey of the project area once the scope of the project was known.

Light (2011) prepared CHMP 11567 for the proposed Smythesdale Sewerage Project which is located within the current Study Area. The project area comprises an approximate 15.5 km linear alignment primarily along road reserves extending from Smythesdale to Cardigan Village. Sections of the project area also traverse private property, undeveloped easements and the Ballarat-Skipton Rail Trail. Landforms within the Study Area include low-lying broad floodplains along Woody Yaloak River to the west of Smythesdale which are surrounded by low hills and plains to the north along Ross Creek-Haddon Road. Woody Yaloak Creek is the major water source in the Smythesdale area with a number of ephemeral watercourses draining the surrounding hills and flowing into the river. Woody Yaloak Creek then turns into Smythes Creek to the north at Haddon. There are also several wetlands towards the north of the project area. The CHMP included desktop, standard and complex assessments. The results of the desktop assessment indicated that Wadawurrung places within the region are generally found in association with water sources. The results also suggested that the high disturbances in the Smythesdale area itself probably indicate that it was unlikely that significant Wadawurrung cultural heritage will have remained intact in the project area. However as there were landforms that are known to be archaeologically sensitive within the project area including rises adjacent to water, a standard assessment would take place. Poor ground surface visibility was noted during the field survey. Previous impacts to the project area included clearing, fencing, drainage, road construction. The road reserves were generally heavily vegetated. A complex assessment occurred, with 28 shovel test pits and a 1x1 m test pit excavated to sterile clay. All the pits showed evidence of prior disturbance with some entirely of fill and some with fragments of European debris throughout. All the landforms within the project area were subject to testing (low rises, low-lying

land and creek corridors). One stone artefact was identified, a silcrete distal flake at approximately 370 mm depth in a disturbed context on top of a low rise adjacent to a human-made drain. This Wadawurrung stone artefact was later registered as the artefact scatter, VAHR 7622-0148 (Ireland Road). This Wadawurrung place is within a disturbed context and may have been redeposited from its original location as a result of drain excavation or possibly earlier European activities. Complex assessment excavation surrounding the artefact find spot did not identify any further Wadawurrung cultural material (Light and Collins 2011: 81). There were no specific management conditions for the CHMP aside from a cultural induction.

Light and Collins (2011) prepared CHMP 12110 for the proposed Smythesdale Sewerage Project, which is the same project as CHMP 11567 as summarised above, the project area for which is situated within the current Study Area. CHMP 12110 was prepared to update the previously prepared CHMP 11567 following some minor changes to the layout at the northern end of the project area. There were no major alterations to CHMP 12110, and no further complex assessment occurred.

Burch (2011) conducted an Aboriginal and historical heritage assessment (AV Report 4345) for the Ballarat West Growth Area, Precinct 2, Smythes Creek and Delacombe, approximately 7.8 km north east of the current Study Area. The background research indicated that at the time of the assessment there was one registered Aboriginal place within the project area, VAHR 7622-0045 with the most likely site types in the area to be artefact scatters, isolated artefacts and scarred trees. A field survey was also undertaken and a total of 12 newly identified Aboriginal places were registered, including VAHR 7622-0112, -0113, -0114, -0115, -0123, -0116, -0118, -0119, -0120, -0121, -0122, and -0117. These Wadawurrung places generally comprised quartz artefacts with one silcrete artefact also identified. Most of the Wadawurrung places were found adjacent to Kensington Creek, or on elevated land overlooking the creek. There were also several areas of archaeological sensitivity noted, with a particular focus on water courses in the project area including Kensington Creek, and elevated landforms adjacent to the creek. Burch also made recommendations about which properties did and did not require CHMPs based on the results of the assessment.

Tunn and Welsh (2016) prepared CHMP 13788 for the Lake Yellowglen Residential Subdivision in Smythesdale. The proposed development will take place approximately 1 km north west of the township of Smythesdale, which is located within the current Study Area. The CHMP included desktop, standard and complex assessments. The results of the desktop assessment indicated that there were no registered Wadawurrung places within the project area. The project area has been heavily disturbed as a result of gold mining, the construction of various dams, the operation and establishment of a vineyard, general farming and cattle grazing. The landform is gently undulating and where ground surfaces remain intact or are minimally disturbed there is moderate potential for surface and subsurface Wadawurrung cultural heritage to occur. The results of the standard assessment revealed poor ground surface visibility. Intensive mining had taken place across the eastern third of the project area during the late 19th and early 20th century. There were some potentially less disturbed sections of the area identified. A targeted complex assessment then occurred across these areas with three 1x1 m test pits in the northern section and two 1x1 m test pits in the middle and more undulating section of the project area. Soil profiles comprised grey humic silty loam topsoil overlying light grey cemented silt overlying strongly cemented yellow/orange clay. No Wadawurrung cultural heritage was identified. Sterile clay was reached at depth ranges of 160-400 mm.

Bullers and MacManus (2015) prepared CHMP 13386 for the Ballarat West Precinct Structure Plan, Glenelg Highway, Smythes Creek, located approximately 7.3 km north east of the current Study

Area. The CHMP included desktop, standard and complex assessments. The results of the desktop assessment indicated that there was one registered Aboriginal place located within the project area, VAHR 7622-0124. The desktop assessment also indicated that the most likely site types for the project area were stone artefact scatters, either low density artefact scatters or isolated artefacts. It was also possible for freshwater shell middens to occur, although this was considered unlikely. A standard assessment was undertaken and low ground surface visibility was noted. There was one Wadawurrung place recorded, VAHR 7622-0124, which was the previously registered Wadawurrung place located near the lip of the escarpment of a large basalt rise. Two quartz artefacts were found. The northern section of the activity area was assessed to be an area of archaeological potential and this area included the basalt rise and floodplain associated with Kensington Creek, with the low-lying floodplain of Winters Creek not assessed to be of archaeological sensitivity as it was prone to flooding. A complex assessment was undertaken with two 1x1 m test pits, 123 shovel test holes (40x40cm) and 21 radial test holes (40x40cm) excavated. Soils on the creek flats/floodplains comprised brown silty clay A horizon overlying red-brown clay B horizon base. The A horizon contained two soil units with the upper unit overlying a slightly darker coloured and increasingly mottled unit. Natural quartz pebbles were found throughout, mainly concentrated in the A2 horizon. Clay was generally identified at depths ranging from 100-520 mm. Soils from the basalt rise landform comprised brown clayey silt to silty clay A horizon overlying mid to dark yellowish brown clay B horizon base. Natural quartz and ironstone gravel is present throughout, mostly concentrated in the A2 horizon. Clay was generally identified at depths ranging from 150 to 600 mm. There were 64 Aboriginal stone artefacts identified in seven test holes. This Wadawurrung cultural heritage was registered as VAHR 7622-0214 represented by 51 quartz and silcrete artefacts found along the northern side of the basalt rise, and VAHR 7622-0213 represented by 13 artefacts found at 5 locations including the basalt rise and in the floodplain. Most of the artefacts were found in shallow contexts, all artefacts being identified within the top 300 mm in the soil context that overlies the gravel and buckshot contexts. Management conditions include surface salvage for VAHR 7822-0124.

Bullers et al. 2018 prepared CHMP 14808 for a 70 ha residential subdivision at Glenelg Highway, Winter Valley located approximately 8.3 km north east of the current Study Area. The CHMP included desktop, standard and complex assessments. The results of the desktop assessment indicated that there were four previously registered Wadawurrung places located in the project area, VAHR 7622-0122, 7622-0121, 7622-0120 and 7622-0119 associated with Kensington Creek, and that surface artefacts, artefact scatters and LDAD were the likely site types to be found in the area. A standard assessment was conducted and a total of 12 quartz surface artefacts were identified, one of which was considered to be a newly identified Wadawurrung place, two were considered to be from the previously registered place VAHR 7622-0119, and the remaining seven were from VAHR 7622-0120. There were six primary landforms identified within the project area including creek terrace/floodplains, gentle slopes, steep slopes, undulating basalt plains with minor rises, sedge and rocky knolls. Three main areas were identified as areas of archaeological potential, based on landforms or parts of landforms. A complex assessment then took place with a total of five 1x1 m test pits, 85 50x50 cm shovel test pits and 361 radial test pits excavated. These test pits targeted all of the landforms deemed to be sensitive. The soil profile for the elevated undulating basalt plain comprised a layer of mid brownish grey silt (A1 horizon) overlying light greyish brown silt (A2 horizon) transitioning suddenly to dark yellowish brownish orange clay (B horizon). Clay was reached at a depth range of 220-650 mm. Soils of the creek terrace floodplain comprised dark brown clayey silt (A1 horizon) overlying dark brown silty clay (A2 horizon) overlying dark greyish brown silty clay (A3 horizon) overlying dark grey silty clay (A4 horizon) overlying dark grey silty clay (A5 horizon) with a sudden transition to dark grey clay (B horizon). Clay was reached at a depth range of 220-600

mm. The stratigraphy of the rocky knoll landform comprises dark greyish brown silt (A1 horizon) overlying dark orangish brown silt (A2 horizon) with a sudden transition to dark greyish orange clay (B horizon). Clay was reached at a depth range of 300-500 mm. The stratigraphy of the gentle slope landform consists of dark brown silt (A1 horizon) overlying light greyish brown clayey silt (A2 horizon) with a sudden transition to dark greyish orange compacted clay (B horizon). Clay was reached at a depth range of 190-490 mm. The steep slope landform was not tested.

Of the 451 test pits excavated, 155 contained Wadawurrung cultural heritage material, with 861 subsurface artefacts identified. Artefacts were found across all landforms aside from the steep slopes and sedge landform with a similar distribution of artefacts across the landform, however the artefact densities were more highly concentrated closer to Kensington Creek. Most of the artefacts were associated with the A1 silt horizon and the A2 horizon at a depth range between 100-200 mm with a small percentage of the overall artefact assemblage found below the A2 horizon. Raw materials were predominately quartz, with some quartzite, silcrete, crystal quartz, basalt, chert and glass artefacts also present. Radiocarbon dating results were obtained, providing two dates of 188+/- 32 BP and 2501 +/- 26 BP for VAHR 7622-0270. In total, 15 Wadawurrung places were located within the project area including the previously registered Aboriginal places and the newly registered places VAHR 7622-0263, 7622-0299, 7622-0313, 7622-0267, 7622-0271, 7622-0268, 7622-0269, 7622-0270, 7622-0303, 7622-0304, 7622-0298. Management conditions for the CHMP included harm minimisation to certain Aboriginal places (VAHR 7622-0267), subsurface artefact salvage (VAHR 7622-0268, 7622-0269, 7622-0270, 7622-0303, 7622-0304, 7622-0298), surface and subsurface salvage (VAHR 7622-0120, 7622-0265, 7622-0122), surface artefact salvage (VAHR 7622-0121, 7622-0266

Bullers *et al.* 2017 prepared CHMP 14809 for a residential subdivision for a 65.9 ha project area at Winter Valley, located approximately 8 km north east of the current Study Area. The CHMP included desktop, standard and complex assessments. The results of the desktop assessment indicated that there was one registered Wadawurrung place located within the project area, VAHR 7622-0147, and another located within 50 m of the project area, VAHR 7622-0116. The project area comprises rural farmland that has largely been cleared of vegetation with occasional trees and shrubs present, and a historical inventory site is also registered within the area, stone footings of a former structure. A standard assessment then took place and visibility was limited. Three main landforms were identified, creek floodplain/depression associated with a small drainage line that is poorly defined, two rocky rises that are small and discreet, and elevated undulating plain that comprises the remainder of the project area. The previously registered Wadawurrung place VAHR 7622-0116 was not relocated during the survey. One area of archaeological potential was identified, the location around the previously registered Wadawurrung place. There were also several areas of previous ground disturbance noted relating to fencing, vehicular tracks, dam construction, the site of a former homestead, installation of irrigation channel, and basalt floaters that had been removed from paddocks. A complex assessment was then conducted with one 1x1 m test pit excavated across each of the landforms, and 86 shovel test pits (50 x 50 cm) were also excavated in 12 transects to test each landform. The soils within the elevated plains landform comprised an A horizon of brown clayey silt to 170 mm overlying B horizon of dark yellowish brown clay base. The A horizon had two contexts, one with buckshot and the other hard and cemented with occasional buckshot. The soils from the rocky rise landform comprised an A horizon of cemented brown clayey silt to 400 mm overlying a B horizon of dark yellowish brown clay with frequent basalt gravel. The A horizon had two contexts with frequent basalt gravel in the A2 horizon. The soils of the drainage line landform comprised an A horizon of brown clayey silt to 400 mm overlying dark yellowish brown clay. The A horizon had 2 contexts with slightly lighter brown and frequent basalt gravel in the A2 horizon.

Aboriginal cultural heritage was found and a total of 51 radial shovel test pits were also excavated. There were 12 artefacts found in 8 test holes, with no surface artefacts found. The artefacts were registered as the LDAD, VAHR 7622-0251. The artefacts were identified at depths of 200-300 mm (n=2), 70-200 mm (n=1), 40-280 mm (n=1), 100-200 mm (n=2), 100-350 mm (n=1) and 0-100 mm (n=1). Most of the artefacts were of quartz, aside from one silcrete. Most of the artefacts were found in silty clay soil. Management conditions include salvage of VAHR 7622-0251 and a final attempt to re-locate and collect VAHR 7622-0116.

Young (2021) prepared CHMP 17234 for the Lake Burrumbeet eastern and southern shore Precinct Plans. The project area for CHMP 17234 is situated approximately 8.8 km north west from the current Study Area. This CHMP was prepared to desktop, standard and complex assessments. The results of the desktop assessment indicated that there were eight previously registered Aboriginal places in the project area. Previous assessments suggested that areas most sensitive for Aboriginal places included land in proximity to water, rises overlooking water sources, undisturbed soils (particularly sandy deposits). The desktop assessment concluded that there was a high likelihood for Wadawurrung cultural heritage to be present in the project area, mostly likely in the form of artefact scatters or LDADs. A standard assessment was conducted, with dense grass coverage noted. A total of three previously registered Wadawurrung places were relocated (scarred trees). A total of 16 surface Wadawurrung stone artefacts were identified along the southern shore precinct and 138 artefacts along the eastern shore precinct. The artefacts along the southern shore were registered as VAHR 7622-0387 and VAHR 7622-0384, and those along the eastern shore as VAHR 7622-0386 (which includes the previously registered places VAHR 7623-0017 and 7622-0012). The entire activity area was deemed to be an area of archaeological sensitivity with eight specific areas of archaeological potential on elevated ground overlooking Lake Burrumbeet, Canico Creek, or Burrumbeet Creek. A complex assessment then took place with four 1x1 m test pits, four 3 x 1 m mechanical trenches and twelve 50 x50 cm shovel test pits excavated. Soil profiles comprised brown to grey to white sandy deposits.

A total of 101 subsurface Wadawurrung artefacts were identified along the southern shore precinct and registered as part of VAHR 7622-0387, VAHR 7622-0384, VAHR 7622- 0383, VAHR 7622-0385. Test pits excavated on the sandy rise landform had the highest artefact density per m² than those excavated on the slope or flatter ground. The deepest artefacts occurred on the rise landforms (depths of up to 1400 mm) with the more shallow artefacts occurring on the slope landforms at depths of up to 300 mm, and flat ground intermediate between the two and up to depths of 1200 mm. A total of 11 Wadawurrung places were registered within the project area. Management conditions included no harm permitted to VAHR 7622-0718 and VAHR 7622-0331 and temporary fencing, partial harm to a number of registered Wadawurrung places, and permitted harm to one Wadawurrung place, surface salvage collection, and salvage excavation.

3.4.3 Registered Aboriginal cultural heritage places

The Victorian Aboriginal Heritage Register (VAHR) was accessed by David Mathews on 13 September 2021 for information regarding previous archaeological reports and sources, and the locations and details of Aboriginal places within the geographic region. There are a total of 154 Aboriginal places registered on the VAHR within the geographic region (see Table 3-7). These comprise 101 (65.5%) artefact scatter listings, 34 Low Density Artefact Distribution (LDAD) listings (22%), 32 object collections (20.7% - please note that a number of these object collections were collected outside of the geographic region and are currently being stored in the geographic region), five scarred trees (3.2%), and 1 Aboriginal Ancestral remains (0.6%) (Table 3-9).

It should be noted that some of the artefact scatters registered within the geographic region registered prior to the introduction of the LDAD registration would now fall within the definition of a LDAD, due to low artefact density.

At the time of the commencement of the current assessment there was one Aboriginal place registered in the Study Area. This Aboriginal place is discussed in detail in Section 4.

Table 3-7 Aboriginal places registered within the geographic region

VAHR	Place Name	Aboriginal Place Type	Distance to Study Area (m)	Distance Range (Km)
7622-0148	Ireland Road	Artefact Scatter	0.00	In Study Area
7622-0018	JOE'S GRAVE	Aboriginal Ancestral Remains (Burial)	2588.06	2-3km
7622-0213	Kensington Creek LDAD	Low Density Artefact Distribution	6994.46	6-7km
7622-0213	Kensington Creek LDAD	Low Density Artefact Distribution	7002.47	7-8km
7622-0117	MASADA BOULEVARD IA	Artefact Scatter	7087.70	7-8km
7622-0213	Kensington Creek LDAD	Low Density Artefact Distribution	7133.87	7-8km
7622-0123	GREENHAUGHS ROAD ARTEFACT SCATTER	Artefact Scatter	7189.60	7-8km
7622-0032	KOPKE 1	Scarred Tree	7335.73	7-8km
7622-0132	CHERRY FLAT ROAD IA 1	Artefact Scatter	7355.61	7-8km
7622-0033	KOPKE 2	Scarred Tree	7420.01	7-8km
7622-0113	FAY DRIVE ARTEFACT SCATTER 2	Artefact Scatter	7423.62	7-8km
7622-0133	CHERRY FLAT ROAD IA 2	Artefact Scatter	7590.84	7-8km
7622-0124	KENSINGTON CREEK ARTEFACT SCATTER 6	Artefact Scatter	7648.37	7-8km
7622-0268	316 Glenelg Highway Winter Valley AS3	Artefact Scatter	7655.80	7-8km
7622-0315	KENSINGTON CREEK ARTEFACT SCATTER 2 Place Inspection	Artefact Scatter	7667.77	7-8km
7622-0227	Kensington Creek AS2	Artefact Scatter	7699.58	7-8km
7622-0213	Kensington Creek LDAD	Low Density Artefact Distribution	7701.90	7-8km
7622-0265	KENSINGTON CREEK ARTEFACT SCATTER 3 Revised	Artefact Scatter	7721.10	7-8km
7622-0115	FAY DRIVE IA 2	Artefact Scatter	7742.64	7-8km
7622-0266	KENSINGTON CREEK ARTEFACT SCATTER 4 Revised	Artefact Scatter	7747.26	7-8km
7622-0238	331 Glenelg Highway AS2	Artefact Scatter	7782.81	7-8km
7622-0134	CHERRY FLAT ROAD IA 3	Artefact Scatter	7782.92	7-8km
7622-0237	331 Glenelg Highway AS1	Artefact Scatter	7783.14	7-8km
7622-0213	Kensington Creek LDAD	Low Density Artefact Distribution	7795.52	7-8km
7622-0214	Kensington Creek AS 7	Artefact Scatter	7804.91	7-8km
7622-0114	FAY DRIVE IA 1	Artefact Scatter	7829.24	7-8km
7622-0299	316 Glenelg Highway Winter Valley LDAD2	Low Density Artefact Distribution	7829.89	7-8km
7622-0299	316 Glenelg Highway Winter Valley LDAD2	Low Density Artefact Distribution	7832.06	7-8km
7622-0299	316 Glenelg Highway Winter Valley LDAD2	Low Density Artefact Distribution	7838.51	7-8km
7622-0299	316 Glenelg Highway Winter Valley LDAD2	Low Density Artefact Distribution	7840.08	7-8km
7622-0112	FAY DRIVE ARTEFACT SCATTER 1	Artefact Scatter	7841.91	7-8km
7622-0303	316 Glenelg Highway Winter Valley AS6	Artefact Scatter	7872.55	7-8km
7622-0299	316 Glenelg Highway Winter Valley LDAD2	Low Density Artefact Distribution	7895.52	7-8km
7622-0299	316 Glenelg Highway Winter Valley LDAD2	Low Density Artefact Distribution	7904.88	7-8km

VAHR	Place Name	Aboriginal Place Type	Distance to Study Area (m)	Distance Range (Km)
7622-0299	316 Glenelg Highway Winter Valley LDAD2	Low Density Artefact Distribution	7911.63	7-8km
7622-0235	331 Glenelg Highway LDAD1	Low Density Artefact Distribution	7942.19	7-8km
7622-0235	331 Glenelg Highway LDAD1	Low Density Artefact Distribution	7974.80	7-8km
7622-0235	331 Glenelg Highway LDAD1	Low Density Artefact Distribution	7975.51	7-8km
7622-0235	331 Glenelg Highway LDAD1	Low Density Artefact Distribution	7979.56	7-8km
7622-0235	331 Glenelg Highway LDAD1	Low Density Artefact Distribution	7989.98	7-8km
7622-0235	331 Glenelg Highway LDAD1	Low Density Artefact Distribution	7994.14	7-8km
7622-0251	Greenhalghs Road LDAD	Low Density Artefact Distribution	7999.07	7-8km
7622-0251	Greenhalghs Road LDAD	Low Density Artefact Distribution	8007.53	8-9km
7622-0251	Greenhalghs Road LDAD	Low Density Artefact Distribution	8008.85	8-9km
7622-0251	Greenhalghs Road LDAD	Low Density Artefact Distribution	8008.87	8-9km
7622-0116	GREENHALGHS ROAD IA	Artefact Scatter	8012.02	8-9km
7622-0251	Greenhalghs Road LDAD	Low Density Artefact Distribution	8012.46	8-9km
7622-0251	Greenhalghs Road LDAD	Low Density Artefact Distribution	8014.98	8-9km
7622-0251	Greenhalghs Road LDAD	Low Density Artefact Distribution	8017.77	8-9km
7622-0122	KENSINGTON CREEK ARTEFACT SCATTER 5	Artefact Scatter	8023.53	8-9km
7622-0313	316 Glenelg Highway Winter Valley LDAD6	Low Density Artefact Distribution	8023.88	8-9km
7622-0313	316 Glenelg Highway Winter Valley LDAD6	Low Density Artefact Distribution	8033.21	8-9km
7622-0131	BANYULE CREEK AS 6	Artefact Scatter	8035.66	8-9km
7622-0313	316 Glenelg Highway Winter Valley LDAD6	Low Density Artefact Distribution	8042.15	8-9km
7622-0263	316 Glenelg Highway Winter Valley LDAD1	Low Density Artefact Distribution	8052.05	8-9km
7622-0190	Tait Street 3	Low Density Artefact Distribution	8052.95	8-9km
7622-0263	316 Glenelg Highway Winter Valley LDAD1	Low Density Artefact Distribution	8054.17	8-9km
7622-0263	316 Glenelg Highway Winter Valley LDAD1	Low Density Artefact Distribution	8058.87	8-9km
7622-0263	316 Glenelg Highway Winter Valley LDAD1	Low Density Artefact Distribution	8063.00	8-9km
7622-0263	316 Glenelg Highway Winter Valley LDAD1	Low Density Artefact Distribution	8063.43	8-9km
7622-0251	Greenhalghs Road LDAD	Low Density Artefact Distribution	8063.65	8-9km
7622-0298	316 Glenelg Highway Winter Valley AS9	Artefact Scatter	8065.55	8-9km
7622-0251	Greenhalghs Road LDAD	Low Density Artefact Distribution	8070.49	8-9km
7622-0313	316 Glenelg Highway Winter Valley LDAD6	Low Density Artefact Distribution	8078.61	8-9km
7622-0190	Tait Street 3	Low Density Artefact Distribution	8087.93	8-9km
7622-0190	Tait Street 3	Low Density Artefact Distribution	8099.20	8-9km
7622-0299	316 Glenelg Highway Winter Valley LDAD2	Low Density Artefact Distribution	8109.17	8-9km
7622-0189	Tait Street 2	Artefact Scatter	8124.88	8-9km
7622-0299	316 Glenelg Highway Winter Valley LDAD2	Low Density Artefact Distribution	8146.74	8-9km
7622-0304	316 Glenelg Highway Winter Valley AS8	Artefact Scatter	8153.88	8-9km
7622-0242	Wiltshire Lane 5	Artefact Scatter	8208.51	8-9km
7622-0188	Tait Street 1	Artefact Scatter	8213.87	8-9km
7622-0270	316 Glenelg Highway Winter Valley AS5	Artefact Scatter	8236.48	8-9km
7622-0374	Bonshaw Creek LDAD 1	Low Density Artefact Distribution	8238.70	8-9km
7622-0144	Greenhalghs Road 4	Artefact Scatter	8265.13	8-9km
7622-0374	Bonshaw Creek LDAD 1	Low Density Artefact Distribution	8268.41	8-9km

VAHR	Place Name	Aboriginal Place Type	Distance to Study Area (m)	Distance Range (Km)
7622-0299	316 Glenelg Highway Winter Valley LDAD2	Low Density Artefact Distribution	8270.36	8-9km
7622-0256	Wiltshire Lane 7	Artefact Scatter	8273.82	8-9km
7622-0299	316 Glenelg Highway Winter Valley LDAD2	Low Density Artefact Distribution	8291.23	8-9km
7622-0271	316 Glenelg Highway Winter Valley AS2	Artefact Scatter	8292.70	8-9km
7622-0299	316 Glenelg Highway Winter Valley LDAD2	Low Density Artefact Distribution	8306.01	8-9km
7622-0252	316 Glenelg Hwy LDAD	Low Density Artefact Distribution	8309.22	8-9km
7622-0269	316 Glenelg Highway Winter Valley AS4	Artefact Scatter	8320.78	8-9km
7622-0299	316 Glenelg Highway Winter Valley LDAD2	Low Density Artefact Distribution	8324.28	8-9km
7622-0255	Wiltshire Lane 6	Artefact Scatter	8331.61	8-9km
7622-0147	Greenhalghs Road 01	Artefact Scatter	8338.69	8-9km
7622-0373	Bonshaw Creek 1 AS	Artefact Scatter	8349.19	8-9km
7622-0257	Wiltshire Lane 8	Artefact Scatter	8376.14	8-9km
7622-0267	316 Glenelg Highway Winter Valley AS1	Artefact Scatter	8384.83	8-9km
7622-0187	Smythes Road 1	Low Density Artefact Distribution	8417.36	8-9km
7622-0341	303-303A Smythes Road, Delacombe LDAD1	Low Density Artefact Distribution	8422.01	8-9km
7622-0128	BANYULE CREEK AS 3	Artefact Scatter	8438.56	8-9km
7622-0241	Wiltshire Lane 4	Artefact Scatter	8452.85	8-9km
7622-0374	Bonshaw Creek LDAD 1	Low Density Artefact Distribution	8460.21	8-9km
7622-0375	Bonshaw Creek LDAD 2	Low Density Artefact Distribution	8463.90	8-9km
7622-0340	303-303A Smythes Road, Delacombe Artefact Scatter	Artefact Scatter	8483.67	8-9km
7622-0341	303-303A Smythes Road, Delacombe LDAD1	Low Density Artefact Distribution	8486.67	8-9km
7622-0341	303-303A Smythes Road, Delacombe LDAD1	Low Density Artefact Distribution	8491.41	8-9km
7622-0125	BANYULE CREEK IA	Artefact Scatter	8497.67	8-9km
7622-0375	Bonshaw Creek LDAD 2	Low Density Artefact Distribution	8503.80	8-9km
7622-0187	Smythes Road 1	Low Density Artefact Distribution	8506.28	8-9km
7622-0187	Smythes Road 1	Low Density Artefact Distribution	8511.47	8-9km
7622-0226	Webb Road 1 LDAD	Low Density Artefact Distribution	8516.62	8-9km
7622-0187	Smythes Road 1	Low Density Artefact Distribution	8520.27	8-9km
7622-0187	Smythes Road 1	Low Density Artefact Distribution	8522.47	8-9km
7622-0375	Bonshaw Creek LDAD 2	Low Density Artefact Distribution	8522.69	8-9km
7622-0146	Greenhalghs Road 2	Artefact Scatter	8524.56	8-9km
7622-0045	WINTER CREEK 5	Artefact Scatter	8526.94	8-9km
7622-0202	Bonshaw Creek West	Low Density Artefact Distribution	8526.97	8-9km
7622-0226	Webb Road 1 LDAD	Low Density Artefact Distribution	8530.36	8-9km
7622-0240	Wiltshire Lane 3	Artefact Scatter	8530.89	8-9km
7622-0190	Tait Street 3	Low Density Artefact Distribution	8548.53	8-9km
7622-0236	Wiltshire Lane LDAD	Low Density Artefact Distribution	8551.78	8-9km
7622-0236	Wiltshire Lane LDAD	Low Density Artefact Distribution	8554.34	8-9km
7622-0236	Wiltshire Lane LDAD	Low Density Artefact Distribution	8562.20	8-9km
7622-0202	Bonshaw Creek West	Low Density Artefact Distribution	8569.84	8-9km
7622-0375	Bonshaw Creek LDAD 2	Low Density Artefact Distribution	8584.76	8-9km
7622-0202	Bonshaw Creek West	Low Density Artefact Distribution	8586.64	8-9km
7622-0236	Wiltshire Lane LDAD	Low Density Artefact Distribution	8598.04	8-9km
7622-0145	Greenhalghs Road 3	Artefact Scatter	8618.70	8-9km
7622-0388	Dyson Drive, Lucas LDAD1	Low Density Artefact Distribution	8623.68	8-9km
7622-0140	Banyule Creek AS 4	Artefact Scatter	8624.49	8-9km
7622-0375	Bonshaw Creek LDAD 2	Low Density Artefact Distribution	8626.53	8-9km

VAHR	Place Name	Aboriginal Place Type	Distance to Study Area (m)	Distance Range (Km)
7622-0202	Bonshaw Creek West	Low Density Artefact Distribution	8633.58	8-9km
7622-0202	Bonshaw Creek West	Low Density Artefact Distribution	8640.96	8-9km
7622-0236	Wiltshire Lane LDAD	Low Density Artefact Distribution	8641.72	8-9km
7622-0104	TAIT STREET, DELACOMBE 3	Artefact Scatter	8665.40	8-9km
7622-0239	Wiltshire Lane 1	Artefact Scatter	8676.11	8-9km
7622-0200	Tait Street LDAD	Low Density Artefact Distribution	8688.22	8-9km
7622-0206	Tait Street AS 3	Artefact Scatter	8696.03	8-9km
7622-0200	Tait Street LDAD	Low Density Artefact Distribution	8697.77	8-9km
7622-0200	Tait Street LDAD	Low Density Artefact Distribution	8700.43	8-9km
7622-0143	Greenhalghs Road 5	Artefact Scatter	8702.40	8-9km
7622-0130	BANYULE CREEK AS 5	Artefact Scatter	8706.67	8-9km
7622-0200	Tait Street LDAD	Low Density Artefact Distribution	8719.29	8-9km
7622-0204	Tait Street AS 2	Artefact Scatter	8723.98	8-9km
7622-0243	Wiltshire Lane 2	Artefact Scatter	8730.60	8-9km
7622-0187	Smythes Road 1	Low Density Artefact Distribution	8746.43	8-9km
7622-0203	Tait Street AS 1	Artefact Scatter	8749.76	8-9km
7622-0201	Bonshaw Creek East LDAD	Low Density Artefact Distribution	8761.25	8-9km
7622-0201	Bonshaw Creek East LDAD	Low Density Artefact Distribution	8770.10	8-9km
7622-0187	Smythes Road 1	Low Density Artefact Distribution	8784.34	8-9km
7622-0187	Smythes Road 1	Low Density Artefact Distribution	8788.35	8-9km
7622-0109	BALLARAT-CARNGHAM ROAD IA 1	Artefact Scatter	8794.10	8-9km
7622-0187	Smythes Road 1	Low Density Artefact Distribution	8796.38	8-9km
7622-0191	Smythes Road 3	Artefact Scatter	8824.79	8-9km
7622-0142	Winter Creek	Artefact Scatter	8827.03	8-9km
7622-0185	Smythes Road 2	Artefact Scatter	8827.33	8-9km
7622-0102	TAIT STREET, DELACOMBE 1	Artefact Scatter	8838.77	8-9km
7622-0387	Lake Burrumbeet Southern Shore LDAD	Low Density Artefact Distribution	8848.70	8-9km
7622-0191	Smythes Road 3	Object Collection	8859.59	8-9km
7622-0068	DELACOMBE 2	Object Collection	8860.00	8-9km
7622-0104	TAIT STREET, DELACOMBE 3	Object Collection	8860.00	8-9km
7622-0103	TAIT STREET, DELACOMBE 2	Object Collection	8860.00	8-9km
7622-0069	DELACOMBE 3	Object Collection	8860.00	8-9km
7622-0388	Dyson Drive, Lucas LDAD1	Low Density Artefact Distribution	8889.30	8-9km
7622-0387	Lake Burrumbeet Southern Shore LDAD	Low Density Artefact Distribution	8906.65	8-9km
7622-0103	TAIT STREET, DELACOMBE 2	Artefact Scatter	8910.73	8-9km
7622-0208	Russells Reserve Scar Tree 1	Scarred Tree	8917.64	8-9km
7622-0388	Dyson Drive, Lucas LDAD1	Low Density Artefact Distribution	8932.40	8-9km
7622-0069	DELACOMBE 3	Artefact Scatter	8947.82	8-9km
7622-0211	Lake Burrumbeet South ST2	Scarred Tree	8957.63	8-9km
7622-0387	Lake Burrumbeet Southern Shore LDAD	Low Density Artefact Distribution	8962.64	8-9km
7622-0388	Dyson Drive, Lucas LDAD1	Low Density Artefact Distribution	8981.03	8-9km
7622-0388	Dyson Drive, Lucas LDAD1	Low Density Artefact Distribution	8996.75	8-9km
7622-0388	Dyson Drive, Lucas LDAD1	Low Density Artefact Distribution	9005.71	9-10km
7622-0383	Shoreline Rise, Lake Burrumbeet AS1	Artefact Scatter	9006.45	9-10km
7622-0160	Dyson AS 10	Artefact Scatter	9008.93	9-10km
7622-0388	Dyson Drive, Lucas LDAD1	Low Density Artefact Distribution	9021.56	9-10km
7622-0118	KENSINGTON CREEK ARTEFACT SCATTER 1	Artefact Scatter	9024.47	9-10km
7622-0388	Dyson Drive, Lucas LDAD1	Low Density Artefact Distribution	9038.62	9-10km
7622-0272	108 Smythes Rd, Delacombe	Low Density Artefact Distribution	9043.09	9-10km
7622-0068	DELACOMBE 2	Artefact Scatter	9047.44	9-10km
7622-0272	108 Smythes Rd, Delacombe	Low Density Artefact Distribution	9048.25	9-10km
7622-0272	108 Smythes Rd, Delacombe	Low Density Artefact Distribution	9051.26	9-10km
7622-0272	108 Smythes Rd, Delacombe	Low Density Artefact Distribution	9055.15	9-10km

VAHR	Place Name	Aboriginal Place Type	Distance to Study Area (m)	Distance Range (Km)
7622-0272	108 Smythes Rd, Delacombe	Low Density Artefact Distribution	9056.67	9-10km
7622-0272	108 Smythes Rd, Delacombe	Low Density Artefact Distribution	9069.93	9-10km
7622-0244	Carngham Road LDAD	Low Density Artefact Distribution	9075.86	9-10km
7622-0272	108 Smythes Rd, Delacombe	Low Density Artefact Distribution	9077.01	9-10km
7622-0244	Carngham Road LDAD	Low Density Artefact Distribution	9078.44	9-10km
7622-0272	108 Smythes Rd, Delacombe	Low Density Artefact Distribution	9083.13	9-10km
7622-0011	BURRUMBEET 3	Artefact Scatter	9094.76	9-10km
7622-0182	Ballarat-Carngham Road LDAD1	Low Density Artefact Distribution	9095.90	9-10km
7622-0182	Ballarat-Carngham Road LDAD1	Low Density Artefact Distribution	9214.99	9-10km
7622-0182	Ballarat-Carngham Road LDAD1	Low Density Artefact Distribution	9220.56	9-10km
7622-0182	Ballarat-Carngham Road LDAD1	Low Density Artefact Distribution	9221.45	9-10km
7822-4452	Lot 6 Brooking Road, Gisborne LDAD1	Object Collection	9226.29	9-10km
7823-0370	14-22 Sutherlands Road, Riddells Creek LDAD1	Object Collection	9226.29	9-10km
7622-0355	CA3 Yendon No.2 Road, Buninyong LDAD1	Object Collection	9226.29	9-10km
7721-1450	106 Rennie Street, Lara LDAD1	Object Collection	9226.29	9-10km
7822-4502	Lot 6 Brooking Road, Gisborne LDAD2	Object Collection	9226.29	9-10km
7722-1215	320 Carrs Road, Anakie LDAD1	Object Collection	9226.29	9-10km
7721-1419	Cowies Creek, Bell Park Artefact Scatter 1	Object Collection	9226.29	9-10km
7721-1420	Cowies Creek, Bell Park LDAD1	Object Collection	9226.29	9-10km
7621-0422	Barwon River Terrace LDAD1	Object Collection	9226.29	9-10km
7622-0343	Icon Drive, Delacombe Artefact Scatter	Object Collection	9226.29	9-10km
7622-0383	Shoreline Rise, Lake Burrumbeet AS1	Object Collection	9226.29	9-10km
7622-0339	Lot 8 Icon Drive, Delacombe LDAD1	Object Collection	9226.29	9-10km
7622-0336	Lot 40 Icon Drive, Delacombe LDAD1	Object Collection	9226.29	9-10km
7622-0384	Canico Creek Rise, Lake Burrumbeet AS1	Object Collection	9226.29	9-10km
7622-0378	Yarrowee River Reserve, Ballarat Central LDAD1	Object Collection	9226.29	9-10km
7622-0380	325a Humffray Street North, Brown Hill AS1	Object Collection	9226.29	9-10km
7622-0379	Humffray Street South, Mount Pleasant LDAD	Object Collection	9226.29	9-10km
7622-0340	303-303A Smythes Road, Delacombe Artefact Scatter	Object Collection	9226.29	9-10km
7622-0385	Burrumbeet Ski Club Rise, Lake Burrumbeet AS1	Object Collection	9226.29	9-10km
7622-0358	Lot 62 Icon Drive, Delacombe LDAD1	Object Collection	9226.29	9-10km
7622-0357	Lot 62 Icon Drive, Delacombe Artefact Scatter	Object Collection	9226.29	9-10km
7622-0341	303-303A Smythes Road, Delacombe LDAD1	Object Collection	9226.29	9-10km
7622-0387	Lake Burrumbeet Southern Shore LDAD	Object Collection	9226.29	9-10km
7622-0182	Ballarat-Carngham Road LDAD1	Low Density Artefact Distribution	9226.30	9-10km
7622-0156	Dyson AS 6	Artefact Scatter	9227.62	9-10km
7622-0387	Lake Burrumbeet Southern Shore LDAD	Low Density Artefact Distribution	9230.68	9-10km
7622-0244	Carngham Road LDAD	Low Density Artefact Distribution	9234.68	9-10km
7622-0064	DYSON IA 2	Artefact Scatter	9235.32	9-10km
7622-0244	Carngham Road LDAD	Low Density Artefact Distribution	9243.22	9-10km
7622-0244	Carngham Road LDAD	Low Density Artefact Distribution	9253.84	9-10km
7622-0244	Carngham Road LDAD	Low Density Artefact Distribution	9255.04	9-10km
7622-0384	Canico Creek Rise, Lake Burrumbeet AS1	Artefact Scatter	9269.10	9-10km

VAHR	Place Name	Aboriginal Place Type	Distance to Study Area (m)	Distance Range (Km)
7622-0231	Lot 36 Paddys Drive, Delacombe LDAD1	Low Density Artefact Distribution	9271.06	9-10km
7622-0343	Icon Drive, Delacombe Artefact Scatter	Artefact Scatter	9271.85	9-10km
7622-0327	Lot 60-61 Icon Drive, Delacombe LDAD1	Low Density Artefact Distribution	9274.61	9-10km
7622-0327	Lot 60-61 Icon Drive, Delacombe LDAD1	Low Density Artefact Distribution	9301.37	9-10km
7622-0150	Dyson AS 3	Artefact Scatter	9309.80	9-10km
7622-0229	Lot 37 Paddys Drive, Delacombe Artefact Scatter	Artefact Scatter	9324.03	9-10km
7622-0061	DYSON AS 1	Artefact Scatter	9324.69	9-10km
7622-0110	BALLARAT-CARNGHAM ROAD IA 2	Artefact Scatter	9324.71	9-10km
7622-0338	Lot 39 Icon Drive, Delacombe LDAD1	Low Density Artefact Distribution	9331.46	9-10km
7622-0338	Lot 39 Icon Drive, Delacombe LDAD1	Low Density Artefact Distribution	9333.28	9-10km
7622-0153	Dyson IA 6	Artefact Scatter	9335.60	9-10km
7622-0358	Lot 62 Icon Drive, Delacombe LDAD1	Low Density Artefact Distribution	9338.08	9-10km
7622-0338	Lot 39 Icon Drive, Delacombe LDAD1	Low Density Artefact Distribution	9342.45	9-10km
7622-0358	Lot 62 Icon Drive, Delacombe LDAD1	Low Density Artefact Distribution	9345.25	9-10km
7622-0228	Lot 37 Paddys Drive, Delacombe LDAD1	Low Density Artefact Distribution	9353.89	9-10km
7622-0358	Lot 62 Icon Drive, Delacombe LDAD1	Low Density Artefact Distribution	9354.49	9-10km
7622-0387	Lake Burrumbeet Southern Shore LDAD	Low Density Artefact Distribution	9355.30	9-10km
7622-0229	Lot 37 Paddys Drive, Delacombe Artefact Scatter	Object Collection	9357.10	9-10km
7622-0228	Lot 37 Paddys Drive, Delacombe LDAD1	Object Collection	9357.10	9-10km
7622-0358	Lot 62 Icon Drive, Delacombe LDAD1	Low Density Artefact Distribution	9358.94	9-10km
7622-0151	Dyson AS 4	Artefact Scatter	9359.33	9-10km
7622-0336	Lot 40 Icon Drive, Delacombe LDAD1	Low Density Artefact Distribution	9363.91	9-10km
7622-0357	Lot 62 Icon Drive, Delacombe Artefact Scatter	Artefact Scatter	9367.17	9-10km
7622-0111	DYSON DRIVE ARTEFACT SCATTER	Artefact Scatter	9371.87	9-10km
7622-0336	Lot 40 Icon Drive, Delacombe LDAD1	Low Density Artefact Distribution	9372.23	9-10km
7622-0387	Lake Burrumbeet Southern Shore LDAD	Low Density Artefact Distribution	9373.53	9-10km
7622-0358	Lot 62 Icon Drive, Delacombe LDAD1	Low Density Artefact Distribution	9375.68	9-10km
7622-0358	Lot 62 Icon Drive, Delacombe LDAD1	Low Density Artefact Distribution	9379.89	9-10km
7622-0336	Lot 40 Icon Drive, Delacombe LDAD1	Low Density Artefact Distribution	9386.88	9-10km
7622-0075	CUTHBERTS ROAD AS4	Artefact Scatter	9392.18	9-10km
7622-0336	Lot 40 Icon Drive, Delacombe LDAD1	Low Density Artefact Distribution	9404.28	9-10km
7622-0244	Carngham Road LDAD	Low Density Artefact Distribution	9406.66	9-10km
7622-0076	CUTHBERTS ROAD AS5	Artefact Scatter	9437.21	9-10km
7622-0071	CUTHBERTS ROAD IA1	Artefact Scatter	9442.90	9-10km
7622-0085	CUTHBERTS ROAD AS 7	Artefact Scatter	9456.53	9-10km
7622-0149	Dyson Drive IA7	Artefact Scatter	9549.52	9-10km
7622-0063	DYSON IA 1	Object Collection	9568.05	9-10km
7622-0192	Dyson IA 5	Artefact Scatter	9568.38	9-10km
7622-0339	Lot 8 Icon Drive, Delacombe LDAD1	Low Density Artefact Distribution	9590.84	9-10km
7622-0339	Lot 8 Icon Drive, Delacombe LDAD1	Low Density Artefact Distribution	9597.54	9-10km
7622-0339	Lot 8 Icon Drive, Delacombe LDAD1	Low Density Artefact Distribution	9599.06	9-10km
7622-0339	Lot 8 Icon Drive, Delacombe LDAD1	Low Density Artefact Distribution	9605.09	9-10km
7622-0330	Dowcra Street LDAD	Object Collection	9622.44	9-10km
7622-0330	Dowcra Street LDAD	Low Density Artefact Distribution	9634.00	9-10km
7622-0083	CUTHBERTS ROAD IA3	Artefact Scatter	9638.08	9-10km
7622-0066	DYSON IA 4	Artefact Scatter	9646.23	9-10km
7622-0084	CUTHBERTS ROAD AS 6	Artefact Scatter	9674.68	9-10km

VAHR	Place Name	Aboriginal Place Type	Distance to Study Area (m)	Distance Range (Km)
7622-0273	Lot 2-3 Icon Drive, Delacombe LDAD1	Low Density Artefact Distribution	9682.09	9-10km
7622-0273	Lot 2-3 Icon Drive, Delacombe LDAD1	Low Density Artefact Distribution	9690.04	9-10km
7622-0212	Lake Burrumbeet South ST3	Scarred Tree	9728.28	9-10km
7622-0219	Kensington Creek AS8	Artefact Scatter	9768.53	9-10km
7622-0349	Ballymanus LDAD 1	Low Density Artefact Distribution	9770.77	9-10km
7622-0387	Lake Burrumbeet Southern Shore LDAD	Low Density Artefact Distribution	9778.72	9-10km
7622-0349	Ballymanus LDAD 1	Low Density Artefact Distribution	9782.05	9-10km
7622-0385	Burrumbeet Ski Club Rise, Lake Burrumbeet AS1	Artefact Scatter	9798.16	9-10km
7622-0387	Lake Burrumbeet Southern Shore LDAD	Low Density Artefact Distribution	9817.30	9-10km
7622-0065	DYSON IA 3	Artefact Scatter	9820.05	9-10km
7622-0387	Lake Burrumbeet Southern Shore LDAD	Low Density Artefact Distribution	9831.91	9-10km
7622-0345	Ballymanus AS1	Artefact Scatter	9839.95	9-10km
7622-0152	Dyson AS 5	Artefact Scatter	9841.23	9-10km
7622-0376	20 Stonepark Road, Delacombe Artefact Scatter 1	Artefact Scatter	9869.81	9-10km
7622-0082	CUTHBERTS ROAD IA2	Artefact Scatter	9907.01	9-10km
7622-0387	Lake Burrumbeet Southern Shore LDAD	Low Density Artefact Distribution	9923.23	9-10km
7622-0026	DILLON'S HILL 4	Artefact Scatter	9951.17	9-10km
7622-0377	20 Stonepark Road, Delacombe LDAD 2	Low Density Artefact Distribution	9953.74	9-10km
7622-0333	Enfield State Park LDAD 1	Low Density Artefact Distribution	9954.88	9-10km
7622-0159	Dyson IA 9	Artefact Scatter	9957.34	9-10km
7622-0072	CUTHBERTS ROAD AS1	Artefact Scatter	9957.47	9-10km
7622-0037	FINCH'S ROAD	Artefact Scatter	9961.33	9-10km
7622-0073	CUTHBERTS ROAD AS2	Artefact Scatter	9982.73	9-10km
7622-0348	Ballymanus AS 4	Artefact Scatter	9983.93	9-10km
7622-0387	Lake Burrumbeet Southern Shore LDAD	Low Density Artefact Distribution	9992.25	9-10km

Table 3-8 Aboriginal places registered within the geographic region summary of distance to Study Area and Artefact Type

Distance to the Study Area	Aboriginal Place Type	Count of VAHR
<i>in Study Area</i>	Artefact Scatter	1
2-3 km	Aboriginal Ancestral Remains (Burial)	1
6-7 km	Low Density Artefact Distribution	1
7-8 km	Artefact Scatter	19
	Low Density Artefact Distribution	4
	Scarred Tree	2
8- 9 km	Artefact Scatter	42
	Low Density Artefact Distribution	17
	Object Collection	5
	Scarred Tree	2
9- 10km	Artefact Scatter	39
	Low Density Artefact Distribution	17
	Object Collection	27
	Scarred Tree	1
Total		154

Table 3-9 Summary of Aboriginal place types within the geographic region

Aboriginal Place Types	Count of VAHR
Aboriginal Ancestral Remains (Burial)	1
Artefact Scatter	101
Low Density Artefact Distribution	34
Object Collection	32
Scarred Tree	5
Total	154

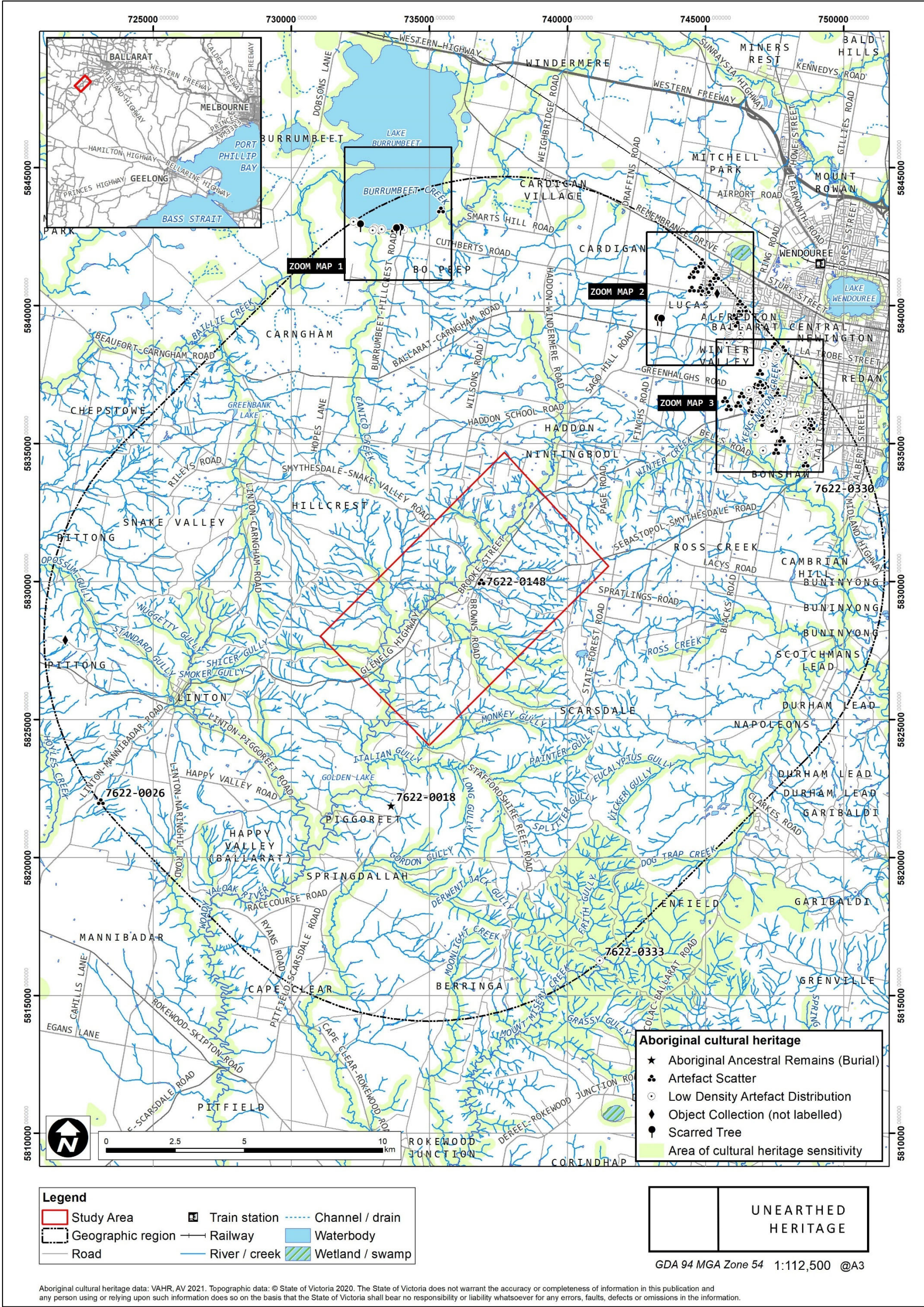


Figure 3-4 Registered Aboriginal places in the geographic region – Overview Map

3.5 Desktop assessment conclusions

Following from the desktop assessment, the following key points can be made about Wadawurrung cultural heritage within the Study Area:

- There is one Wadawurrung place currently registered within the Study Area:
 - VAHR 7622-0148 – artefact scatter (single artefact).
- Likely Wadawurrung place types to be found within the Study Area are artefact scatters, LDADs and isolated artefact occurrences and scarred trees.
- Wadawurrung places are more likely to be located in proximity to fresh water sources in areas that have not been subject to high degrees of previous ground disturbances.
- Landforms that are sensitive for Wadawurrung cultural heritage places include elevated land overlooking water sources, land in proximity to water sources, undisturbed soils and landforms in proximity to water sources, saddles and ridgelines that give good views and are close to potable water or provide travel routes between locales.
- Results of previous archaeological studies have indicated that sandy rise landforms and landforms adjacent to major water sources have high potential to contain subsurface Wadawurrung cultural heritage material.
- Raw materials represented within Wadawurrung artefact scatters and artefact occurrences will likely be predominated by locally available resources such as quartz, and lesser quantities of imported raw materials such as silcrete.
- The Study Area and geographic region contain a diverse range of geological and geomorphological units and also a wide range of flora and fauna which would have provided Wadawurrung People with abundant resources.

4 Details of the Aboriginal cultural heritage in the study area

4.1 Assessment of the Aboriginal cultural heritage

There is one previously registered Wadawurrung place are located within the Study Area, the artefact scatter VAHR 7622-0148 (Ireland Road).

4.2 VAHR 7622-0148 (Ireland Road)

4.2.1 Location Details

Table 4-1 Location details – 7622-0148

VAHR	Place Name	Place Type	Previous Registered	Distance to Study Area (m)
7622-0148	Ireland Road	Artefact Scatter	Yes	0.00

4.2.2 Site Description

VAHR 7622-0148 – Ireland Road

This artefact scatter was registered in 2011 by Anna Light as part of the assessment for CHMP 11567. The artefact scatter is represented by a single silcrete distal flake identified in disturbed subsurface deposits at an approximate depth of 370 mm in dry silty clay on top of a gentle rise, in the road reserve on vacant land, adjacent to an artificial drain. The stone artefact was not *in situ* and may have been redeposited from its original location as a result of drain excavation or possibly earlier European activities. Complex assessment excavation surrounding the artefact find spot did not identify any further Wadawurrung cultural material, and the place extent was based on the artefact bearing shovel test pit where the artefact was identified, and the boundary of the Aboriginal place was determined by the spatial extent of Aboriginal cultural material. The consultants for CHMP 11567 assessed this Wadawurrung place as having low archaeological significance based on the number of artefacts present and the condition of the Wadawurrung place.

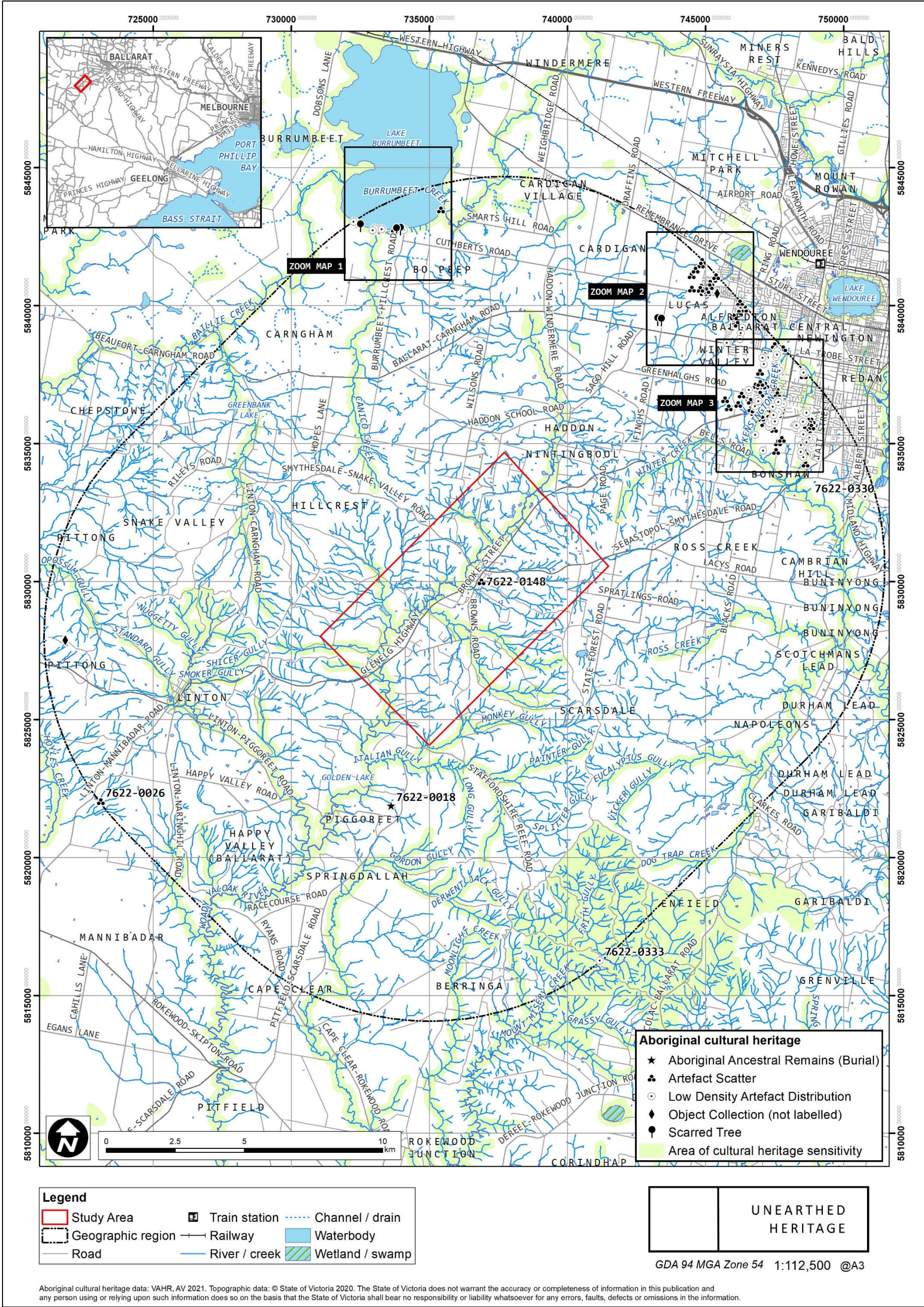


Figure 4-1 Registered Aboriginal heritage places in the study area

5 RAP Consultation / Recommendations

5.1.1 Introduction

A single meeting was held via Teams on 30 November 2021 with the following participants:

WTOAC	GPS	Unearthed Heritage Australia
Stephanie Skinner (TO) Kelly Ann Blake (TO) David Jones (Staff)	Alicia te Wierik Laura Murphy	David Mathews

The meeting commenced with introductions and an acknowledgement. Alicia and Laura gave an overview of the project and project area. David gave an overview of the archaeological background of the geographic region and study area, including geology, geomorphology and other environmental conditions. The previously registered Aboriginal places within the activity area and geographic region were also discussed.

An open discussion occurred about the nature and stage of the Smythesdale Structure Plan and the archaeological, non-archaeological and environmental values relating to the study area.

The following recommendations that may assist this strategic planning activity, were developed through discussions with the RAP and recognise the values, threats and strategies narrated in the WTOAC *Palerrt Tjaara Dja: Wadawurrung Healthy Country Plan (2020)*, are as follows:

- WTOAC have a concern about the health of the Woody Yallock river including its watercourse, its cultural flows, the deteriorating habitat and thus the poorly biodiversity communities along this important watercourse, notwithstanding evident land care initiatives by the local communities, and would like activities and initiatives to be taken to heal this corridor landscape;
- the Woody Yallock valleyscape hold significance to the Wadawurrung People due to its tangible and intangible living cultural heritage values, so any initiatives that can be taken to protect, conserve and enhance the interpretation of this valleyscape would gratefully supported by the Wadawurrung People;
- WTOAC have an aspiration, recognising that the Woody Yallock valleyscape corridor is the physical and spiritual lifeblood corridor of this locality, that this spirit be re-kindled into a lineal community corridor around which revegetation activities, community-based public art initiatives, interpretation strategies, community facilities and meeting spaces, the school's outdoor education and art activities, all coalesce together into an integrated community tapestry-thread shared-pathway with many coloured narrative layers but all binding the same tapestry together; and
- WTOAC would invite a continuing discussions with the Council as to respecting these intangible values in any future Woody Yallock valleyscape interpretation, development and or management activity/ies.

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